XEROX

XE SERIES SERVICE MANUAL

XE60/XE62 XE80/XE82/XE84

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701P14350 9/98

Pictorial indication

This manual uses pictorial indications for quick grasp of safety measures. Be sure to understand the following descriptions before reading the manual text.

⚠ WARNING

If this precaution is not observed, a serious damage or death may be resulted.

ATTENTION If this precaution is not observed, a damage may be resulted to the machine and objects around the machine or the operator of the machine.

Meaning of pictorial indications

ndicates something which must be taken great care of.

Indicates something which must not be done.

Indicated something which must be done.

MARNING

Observe the power specifications of 15A or above and a 100V power outlet (with a grounding terminal. If not, a fire may be resulted.



Avoid complex wiring. If not, a fire or an electric shock may be resulted.

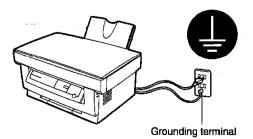


Do not damage, break, or process the power cord. Do not put a something heavy on the cord, do not pull or bend the cord forcibly. If not, a fire or an electric shock may be resulted.



MARNING

Be sure to connect the grounding wire (green wire attached to the power cord) and the grounding terminal (which was processed by the distributor) first. If not, a fire or an electric shock may be resulted. (The grounding work process is charged.)



Do not put a vessel with water in it or a metal piece (such as scissors) on the copier. If dropped over or inside the machine, a fire or an electric shock may be resulted.



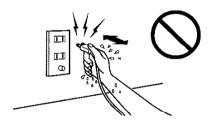
If a metal piece or water should be dropped inside the machine, immediately turn off the power switch and disconnect the power plug from the power outlet. Then contact the distributor. If the machine is used without proper treatment, a fire or an electric shock may be resulted.



In case of any abnormality such as an overheating, smoking, an abnormal smell, stop using the machine. If the machine is used without proper treatment, a fire or an electric shock may be resulted. In such a case, immediately turn off the power switch and disconnect the power plug from the power outlet. Then contact the distributor.



Avoid touching the power plug with a wet hand. If not, an electric shock may be resulted.

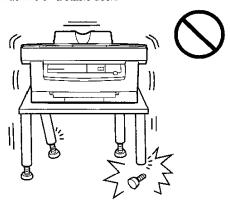


Do not remodel or modify the machine. It may cause a fire or an electric shock.



ATTENTION

Do not put the machine on an unstable or slanted surface. It may cause a drop or fall of the machine, resulting in a damage. Be sure to put the machine on a stable desk.



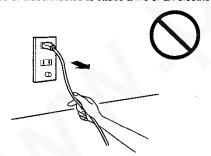
Avoid installation of the machine in a wet, dusty place. It may cause a fire or an electric shock.



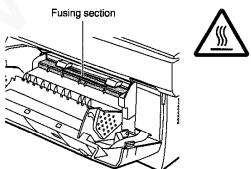
When leaving the machine unused for a considerable time, turn off the power switch and disconnect the power plug from the power outlet for safety.



When disconnecting the power plug from the power outlet, do not pull the power cord. If the power cord is pulled forcibly, the core wire may be exposed or disconnected to cause a fire or an electric shock.



When removing a paper jam, do not touch the fusing section, which is heated to a high temperature. Touching the fusing section may cause a burn.

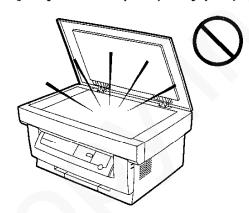


When moving the machine, turn off the power switch and disconnect the power plug from the power outlet. The earth wire must be disconnected at last. If not, the cord is damaged to cause a fire and electric shock.

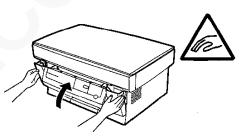


ATTENTION

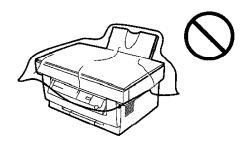
Avoid seeing the light source directly. It may damage your eyes.



When closing the front cover for paper jam process or maintenance, be careful not to pinch your fingers.



Do not cover the machine with a dust cover, cloth, or vinyl sheet with the power ON. It disturbs heat radiation to cause a fire.



Do not put a toner cartridge or a developer cartridge into a fire. Toner may disperse to cause a burn. Keep the cartridges away from children.



When connecting with a computer, turn off the power switch of the machine and the computer before connection. If not, an electric shock or damage may be caused.

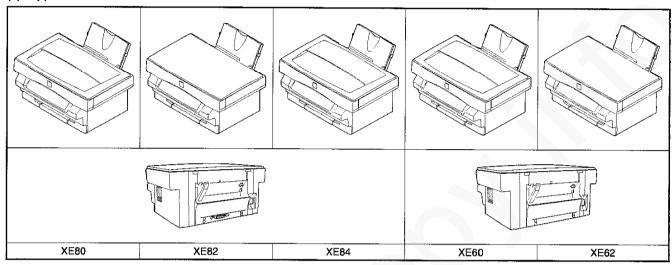


[1] SYSTEM CONFIGURATION

1. LINEUP

A. Main Unit

(1) Appearance

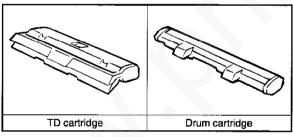


(2) Function/Equipment

Item		Model				Notes	
		XE80	XE82	XE84	XE60	XE62	Notes
Function/Equipment	Copying speed	6 CPM					
	Printing speed	8 PPM	8 PPM	8 PPM	N/A	N/A	
	Paper tray capacity	250 sheets	200 sheets	200 sheets	250 sheets	200 sheets	
	Work Organizer	Yes	No	Yes	Yes	No	

B. Supplies

(1) Appearance



(2) Supplies List

Items	District	Model/Parts code
Drum cartridge	North America	13R553N
	Europe	13R553W
	Other countries	13R554
TD cartridge	North America	6R916N
	Europe	6R916W
	Other countries	6R917

C. Accessories

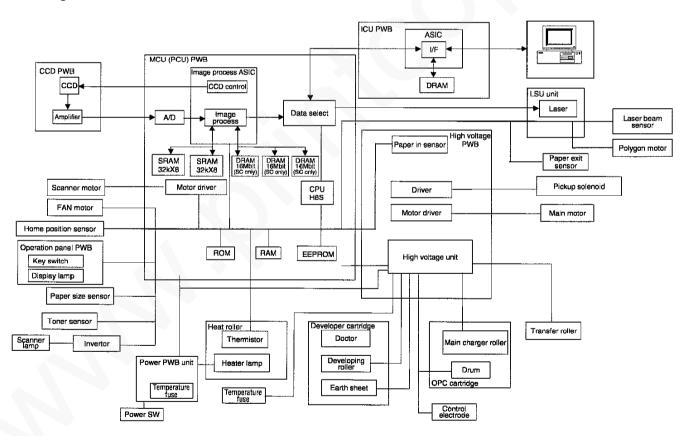
Accessories list

Subsidiaries	North /	America	F	ırope
Model	Copier	Copier/Printer	Copier	Copier/Printer
Tray (Universal)	Included	Included	Included	Included
Drum cartridge	Included	Included	Included	Included
TD cartridge (1.5K)	Included	Included	Included	Included
Original cover	Included	Included	Included	Included
AC power cord	Included	Included	Option	Option
Printer cable	N/A	Included	N/A	Included
Printer Driver (CD-ROM)	N/A	Included	N/A	Option
Operation manual	Included	Included	Option	Option
Warranty card/VIC sheet	Included	Included	Option	Option
Quick reference	Included	Included	Option	Option
Shipping pin guide	Included	Included	Option	Option
Shipping screw tag	Included	Included	included	Included

2. STRUCTURE

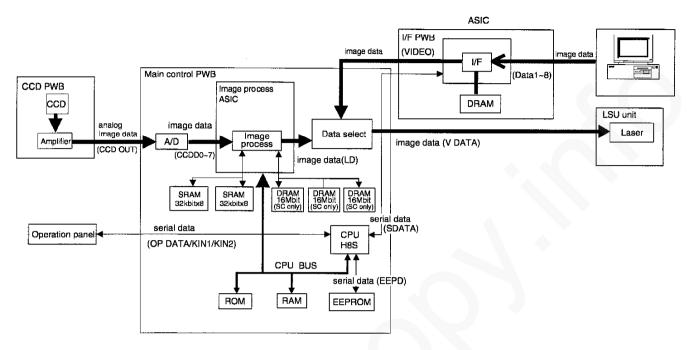
A. Hardware

Block diagram



B. Firmware

Block diagram



3. SOFTWARE

Utilities

ltems	Contents	Media
GDI Printer driver	Printer driver	CD-ROM

4. OPERATING ENVIRONMENT

(1) System requirements

Host computer	Operating system	Emulation	Plug and play	Network
IBM PC/AT or 100% compatible	MS-DOS 3.3 + MS-Windows 3.1X or later MS-Windows 95 MS-Windows NT 4.0	Sleek type GDI	Supported	Not supported

(2) Interface

Туре	Host computer	Operating system	Protocol
IEEE1284P x1	IBM PC/AT or 100% compatible	MS-DOS 3.3 + MS-Windows 3.1X or later MS-Windows 95 MS-Windows NT 4.0	ECP Nibble

[2] SPECIFICATIONS

1. BASIC SPECIFICATIONS

(1) Types

Model type	Desktop type
Scanning type	Flat bed/Monochrome type
Printing type	Electronic photographic type
(Emulation type)	GDI

(2) Target users

Print Volume	XE60 series	XE80 series
Range	_	
Average	200 sheet/month	450 sheet/month
Maximum	500 sheet/month	1,000 sheet/month

(3) Operating environment

Printer mode

<1> System requirements

Host computer	Operating system	Emulation	Network
IBM PC/AT or	MS-DOS 3.3 + MS-Windows 3.1X or later MS-Windows 95 MS-Windows NT 4.0	Sleek type	Not
100% compatible		GDI	supported

<2> Interface

Туре	Host computer	Operating system	Protocol
IEEE1284 P (1 ports)	IBM PC/AT or 100% compatible	MS-DOS 3.3 + MS-Windows 3.1X or later MS-Windows 95 MS-Windows NT 4.0	Peppy Nibble

(4) Outer dimensions

Packaged	_
Machine	$460 \times 425 \times 229 \text{ mm } (18.2 \times 16.8 \times 9.02 \text{ in.})$

(5) Weight

Packaged			
Machine	10.00 Kg		

(6) Machine life

60K prints or 5 years

2. OPERATION (PERFORMANCE)

A. Common operation

Warm-up/Jam recovery

a. Warm-up time

١	Warm-up time after power ON	0 sec	
	Recovery time from power save mode	0 sec	
ı	Jam recovery time	0 sec	

b. Jam recovery time

B. Copy mode

(1) Max. original size

8-1/2" × 14" (210 × 297 mm)

(2) Exposure mode

Exposure mode	Steps for exposure		
Automatic	_		
Text	5 steps		
Photo	5 steps		
Toner save	5 steps		

(3) Copy ratio

Copy ratio	Zoom ratio range/fixed ratio
Zoom mode	50% to 200% (151 steps in 1% increments)
Fixed ratio mode (AB system)	reduce (78%)/2 enlarge (129,200%)/1 Customer settable (50)
Fixed ratio mode (Inch system)	reduce (78%)/2 enlarge (129,200%)/1 Customer settable (50)

Zooming accuracy	Same size copying: 100% ± 1.0%
	Enlargement copying : Set copy ratio ± 1.0%
	Reduction copying: Set copy ratio ± 1.0%

(4) Job speed

a. First copy time

Mode	Time
Normal mode	16 sec
Preheat mode	21 sec
Auto power shut-off mode	23 sec

b. Copying speed for each paper size and reduction/enlargement (CPM)

(5)					
	Copy ratio				
Paper size	Same size	Reduction (50% to 99%)	Enlargement (101% to 200%)		
A4 (Short edge feed)	6 CPM	6 CPM	6 CPM		
B5 (Short edge feed)	6 CPM	6 CPM	6 CPM		
8-1/2" × 14" (Short edge feed)	5 CPM	6 CPM	6 СРМ		
8-1/2" × 11" (Short edge feed)	6 CPM	6 СРМ	6 СРМ		

(5)

Max. number of continuous copies	50 copies

(6) Exposure

a. Exposure mode/Processing

Exposure mode	Function
Automatic	Error diffusion
Text	Error diffusion
Photo	Error diffusion
Toner save	Error diffusion

b. Toner save

Yield of Toner save mode	5% area coverage		

(When using 3K toner cartridge)

c. Zooming type

Main scanning direction	Software computation	
Sub scanning direction	Scanning speed	

d. Resolution

* Scanning

Main scanning direction			Sub scanning direction		
Standard	resolution	Virtual resolution	Standard resolution		Virtual resolution
Scanner	400 dpi	_	Scanner	400 dpi	_
Copier	600 dpi	_	Copier	600 dpi	_

* Printing

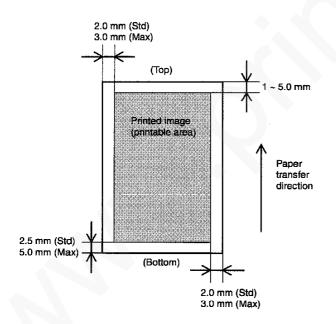
Main scann	ing direction	Sub scanning direction	
Standard resolution	Virtual resolution	Standard resolution	Virtual resolution
600 dpi	_	600 dpi	_

Copy ratio	Position		
Copy fallo	Center	Comer	
Same size	5.0 line/mm	4.5 line/mm	
Enlargement (101% to 200%)	5.0 line/mm	4.5 line/mm	
Reduction (50% to 99%)	4.0 line/mm	4.0 line/mm	

e. Exposure gradient (XC only)

		1	
	Scanning	65 LPI	150 LPI
	Automatic mode	7	6
Printing	Text mode	7	6
v	Photo mode	8 7	7
	Toner save mode		,

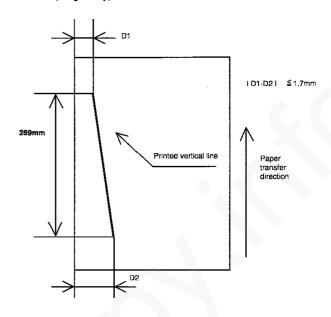
f. Copy (Print) Area



g. Image misalignment

Off center	0 ± 2.0 mm or below
Horizontal misalignment	0 ± 2.0 mm or below

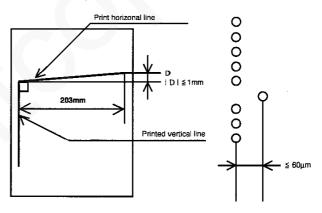
h. Skew (Diagonality)



i. Distortion

Orthogonality

Image phase misalignment



j. Original size

	Minimum	Maximum
AB system	A6 (105 × 148.5 mm)	A4 (210 × 297 mm)
Inch system	3-7/8" × 5-7/8"	8-1/2" × 14"

k. Paper size

	Minimum	Maximum
AB system	A6 (105 × 148.5 mm)	A4 (210 × 297 mm)
Inch system	3-7/8" × 5-7/8"	8-1/2" × 14"

(5) Supported languages

C. Printer mode

(1) System requirements

a. Operating conditions

Host computer	Operating system	Emulation	Driver	Plug and play	Network
IBM PC/AT or 100% compatible	MS-DOS 3.3 + MS-Windows 3.1X or later MS-Windows 95 MS-Windows NT 4.0	Sleek type GDI	GDI printer driver	Supported	Not supported

b. Interface

Туре	Host computer	Operating system	Protocol
IEEE1284 P x 1	IBM PC/AT or 100% compatible	MS-DOS 3.3 + MS-Windows 3.1X or later MS-Windows 95 MS-Windows NT 4.0	Peppy Nibble

(2) Job speed

a. First print time

Mode	Paper feed mode
Normal	20 sec
Power save	20 sec

(A4 (8-1/2" \times 11"), Not including the communication time to the host PC and the set up time of polygon mirror)

b. Print speed

I	Paper size	
	8 ppm (A4, 8-1/2" × 11", Sharp standard paper)	

(3) Image quality

a. Resolution

* Printing

Main scann	ing direction	Sub scanni	ng direction
Standard resolution	Virtual resolution	Standard resolution	Virtual resolution
600 dpi*	_	600 dpi*	

* 300 dpi selectable

1				
Image resolution		_	_	
	1			

b. Gradient

Gradient	
Binary	

c. Image treatment

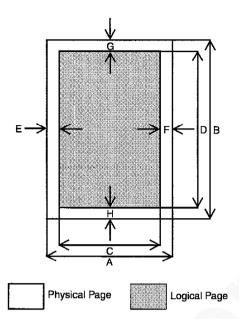
Image treatment	_
Dither pattern method	_

d. Toner save

36 11 61	
Yield of toner save mode	5% area coverage

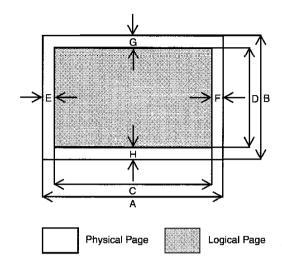
(When using 3K toner cartridge)

e. Print area (Portrait)



Paper size	Value							
rapei size	Α	В	С	D	E	F	G	Н
LETTER	2550/5100	3300/6600	2456/4904	3200/6400	50/100	44/96	50/100	50/100
LEGAL	2550/5100	4200/8400	2456/4904	4100/8200	50/100	44/96	50/100	50/100
EXECUTIVE	2175/4350	3150/6300	2080/4152	3050/6100	50/100	45/98	50/100	50/100
A 4	2480/4960	3507/7015	2384/4760	3407/6815	50/100	46/100	50/100	50/100
A5	1748/3496	2480/4960	1648/3296	2380/4760	50/100	50/100	50/100	50/100
COM-10	1236/2473	2850/5700	1136/2280	2750/5500	50/100	50/93	50/100	50/100
MONARCH	1161/2323	2250/4500	1064/2128	2150/4300	50/100	47/95	50/100	50/100
C 5	1912/3825	2703/5407	1816/3632	2603/5207	50/100	46/93	50/100	50/100
DL	1299/2598	2598/5196	1200/2400	2498/4996	50/100	49/98	50/100	50/100
B5	2149/4299	3035/6070	2056/4104	2935/5870	50/100	43/95	50/100	50/100
FOOLSCAP	2550/5100	3720/7440	2456/4904	3620/7240	50/100	44/96	50/100	50/100
FOLIO	2550/5100	3900/7800	2456/4904	3800/7600	50/100	44/96	50/100	50/100
Government Printed Postcard	1181/2362	1748/3496	1088/2168	1648/3296	50/100	43/94	50/100	50/100
Japanese Envelop (Choukei 3)	1417/2834	2775/5551	1320/2640	2675/5351	50/100	47/94	50/100	50/100

- A. Physical page width
- B. Physical page height
- C. Logical page width
- D. Width difference between Physical page and HP-GL-2 picture frame
- E. Height difference between Physical page and Logical page
- F. Height difference between Physical page and HP-GL-2 picture frame
- G. Printable width
- H. Distance between Top edge and Bottom edge in Physical page

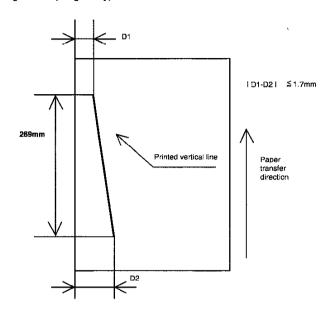


Paper size		Value						
rapei size	Α	В	С	D	E	F	G	н
LETTER	3300/6600	2550/5100	3200/6400	2456/4904	50/100	50/100	50/100	44/96
LEGAL	4200/8400	2550/5100	4100/8200	2456/4904	50/100	50/100	50/100	44/96
EXECUTIVE	3150/6300	2175/4350	3050/6100	2080/4152	50/100	50/100	50/100	45/98
A4	3507/7015	2480/4960	3407/6815	2384/4760	50/100	50/100	50/100	46/100
A5	2480/4960	1748/3496	2380/4760	1648/3296	50/100	50/100	50/100	50/100
COM-10	2850/5700	1236/2473	2750/5500	1136/2280	50/100	50/100	50/100	50/93
MONARCH	2250/4500	1161/2323	2150/4300	1064/2128	50/100	50/100	50/100	47/95
C5	2703/5407	1912/3825	2603/5207	1816/3632	50/100	50/100	50/100	46/93
DL	2598/5196	1299/2598	2498/4996	1200/2400	50/100	50/100	50/100	49/98
B5	3035/6070	2149/4299	2935/5870	2056/4104	50/100	50/100	50/100	43/95
FOOLSCAP	3720/7440	2550/5100	3620/7240	2456/4904	50/100	50/100	50/100	44/96
FOLIO	3900/7800	2550/5100	3800/7600	2456/4904	50/100	50/100	50/100	44/96
Government Printed Postcard	1748/3496	1181/2362	1648/3296	1088/2168	50/100	50/100	50/100	43/94
Japanese Envelope (Choukei 3)	2775/5551	1417/2834	2675/5351	1320/2640	50/100	50/100	50/100	47/94

- A. Physical page width
- B. Physical page height
- C. Logical page width
- D. Width difference between Physical page and HP-GL-2 picture frame
- E. Height difference between Physical page and Logical page
- F. Height difference between Physical page and HP-GL-2 picture frame
- G. Printable width
- H. Distance between Top edge and Bottom edge in Physical page
- f. Image misalignment

Off center	0 ± 2.0 mm or below
Horizontal misalignment	0 ± 2.0 mm or below

g. Skew (Diagonality)



h. Distortion

i. Paper size

,	Minimum	Maximum	
AB system A6 (105 × 148.5 mm)		A4 (210 × 297 mm)	
Inch system	3-7/8" × 8-7/8"	8-1/2" × 14"	

3. ENGINE SPECIFICATION

A. Operation/display section

Display type	LED display
Operation type	Button/switch

B. Paper feed/transfer/finishing

(1) Details of paper feed section

AB system

Paper size	Capacity	Paper weight	Special paper	Notes
A4, B5, A5,	250 sheets	56–80g/m²	_	Paper guide are to be
210 × 330 (Short edge feed)	200 sheets	81–90g/m² Standard condition		changed by user.
	1 sheet	52-130 g/m ² (104 g/m ² is available for A4 size or smaller.)	Recycled paper/ Transparency film/ Label sheet/Envelope	

Inch system

Paper size	Capacity	Paper weight	Special paper	Notes
8-1/2" × 14"	250 sheets	15-21 lbs.	_	Paper guide are to be
8-1/2" × 11" 8-1/2" × 5-1/2"	200 sheets	22-24 lbs. Standard condition	<u> </u>	changed by user.
8-1/2" × 13" 8-7/8" × 12.4" (Short edge feed)	1 sheet	14–34 lbs. (28 lbs. is available for Letter size or smaller.)	Recycled paper/ Transparency film/ Label sheet/Envelope	

(2) Details of finishing

Normal mode

Paper size	Paper weight	Capacity
A4 (8-1/2" × 11")	52-80g/m² (15-21 lbs.)	50 sheets
	81-90g/m² (22-24 lbs.)	40 sheets

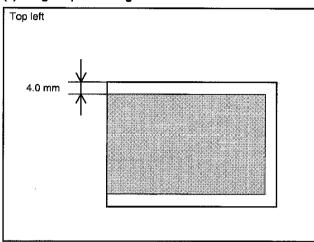
Under standard condition

C. Scanner section

(1)

•		
ų	_	
	Type	Flat bed type/Monochrome
3	1,700	i lat bed type/worldentonie

(2) Original positioning



(3) Resolution

Main scann	ing direction	on Sub scanning direction		
Standard resolution	Virtual resolution	Standard resolution	Virtual resolution	
400 dpi	_	600 dpi		

(4) Gradient

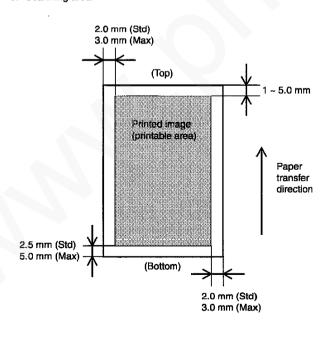
A/D (8 bit 256 steps)

(5) Readable area/size

a. Maximum readable size

AB system	A4 (210 × 297 mm)
Inch system	8-1/2" × 14"

b. Scanning area



(6) Scanning speed

Copy ratio	Scanning		Feed back	
Обрутало	Speed	Time	Speed	Time
100%	50 mm/sec.	_	TBD	_
		,		

(7) Light source (Lamp)

Power voltage	AC 800 V (rms) 48 kHz
Life time	-

(8) Scanning sensor

Туре	Reduction optical image sensor (CCD)
	Monochrome

D. Scanner (Exposure) section

(1) Type

(2) Resolution

Main scanning direction	Sub scanning direction
600 dpi	600 dpi

(3) Gradient

2 steps

(4) Details of Laser unit

Revolution	11,811 rpm
Number of mirrors	6
Laser power	0.35 mw
Laser beam size	75 × 65 μm
Laser wave length	785 nm

E. Imaging process section

(1) Imaging speed

50 mm/sec.

(2) Photoconductor (Drum)

Туре	OPC (φ 20 mm)
Life time	18,000 sheets

(3) Toner

Туре	TD cartridge color: black
Capacity/Life time	3,000 sheets (1,500 sheets with initially installed cartridge) (A4 5% density)

(4) Charging

Method	Brush charging method
Voltage	DC-850 V AC 600 V (P-P)

(5) Transfer

Method	Transfer roller method
Voltage	DC+3.5 kV AC 600 V (P-P)

(6) Exposure

Method	Semiconductor laser method

(7) Develop

Method	Mono component non-magnetic method
Voltage	–310 V

(8) Separation

Method	Separation charger type/method
(9) Discharge	

Method Discharge brush type

(10) Cleaning

Method	By developing roller
Voltage	+200 V

F. Fusing

(1)

Method	Quick heat-up with pressure roller method		

(2) Lamp

Туре	Main unit power supply	Voltage	Power consumption
Halogen lamp	100/120/230 V	100/120/230 V	500 W

(3) Fusing temperature

Ready mode/ Print mode	Power save mode	Print mode (after 20th sheet in the multi print mode)
160°C	80°C	155°C

(4) Heat roller

Type Teflon coated roller

(5) Pressure roller

Туре	Silicone rubber roller

(6) Separation method

Forced	separation	hy sonarat	ion nawl
1 Olceu	Separation	uv sepalai	IUII Dawi

G. Power drive

Stepping motor (Main motor)

H. Engine control MCU (PCU)

Processor	CPU (H8S2350FP)
	ASIC (HG73C025FD)

I. Image control (ICU)

Processor	ASIC (SLA303TF2B)
-----------	-------------------

J. Memory

Туре	Capacity	Contents	Location
DRAM	512 KB	Print data	ICU PWB
ROM (EPROM)	1 M bit	Program	MCU (PCU) PWB
DRAM	16 M bit × 3	Copy image data	MCU (PCU) PWB
EEPROM	2 K bit	Control data	MCU (PCU) PWB
SRAM	32 M bit × 2	Line image data	MCU (PCU) PWB
RAM	265 K bit × 2	Work memory	MCU (PCU) PWB

K. Interface

Туре	Items	Operating system		
	Protocol	Peppy/Nibble		
IEEE1284P	Data transfer speed	3 Mbit/sec (Max)		
	Connector type	_		

L. Power supply

Type	Output						
Туре	Voltage	Current	Notes				
DC power	+24 V	2.0 A					
supply	+12 V	0.13 A					
-	+5 V	1.1 A					
	+3.3 V	0.25 A					
High voltage	DC -310 V (+200 V)						
power supply	DC +3.5 KV (AC 600 V P-P)						
	DC -850 V (AC 600 V P-P)						

M. Operating voltage/power consumption

	Power	Power consumption						
Sub- sidiaries	supply voltage/ frequency	Power save mode	Ready mode	Power shut- down mode	shut- down (during			
_	120V 50/60Hz	29 Wh/h	55 Wh/h	17 Wh/h	170 Wh/h	600 W		
_	220–240V 50/60Hz	35 Wh/h	64 Wh/h	19 Wh/h	175 Wh/h	600 W		

(Within Rated voltage \pm 10% and Rated frequency \pm 2%)

N. Safety/environmental standard

(1) Safety/environmental standard

item	Standard name	Country	
Safety standard	SEMKO	Sweden	
	NEMKO	Norway	
	DEKRA (GS MARK)	Germany	
	BSI	U.K	
	CUL	USA/Canada	
	FDA	USA	
Radio wave noise	CE MARK	Europe	
standard	C-TICK	Australia	
	FCC	USA	
Energy standard	ENERGY STAR	World wide	
		(Printer only)	
Environmental standard	-	-	

(2) Ozon level

(3) Noise level

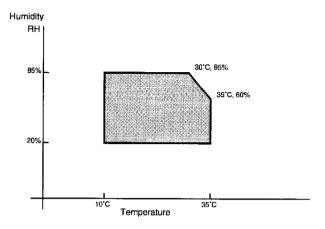
	Individual					
Noise mode	Operating mode	Ready mode	Power shut-down mode			
Sound power level	68.2		0 dB			
Sound pressure level	54.8 dB	_	0 dB			

O. Ambient conditions

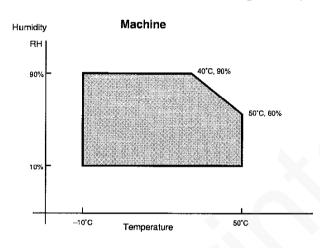
(1) Occupied area

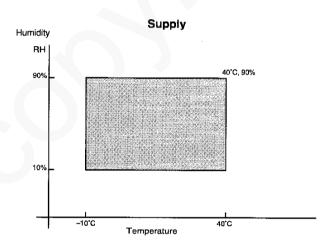
Main unit	460 × 750 mm (18.2 × 29.53 in.)	

(2) Operating conditions

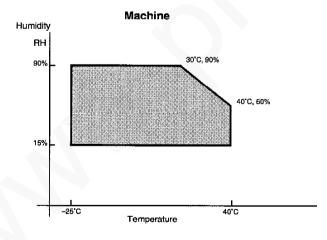


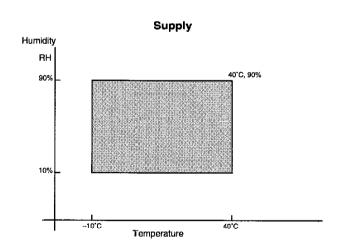
(3) Storage conditions (packed in the packing material)





(4) Transport condition (packed in the packing material)





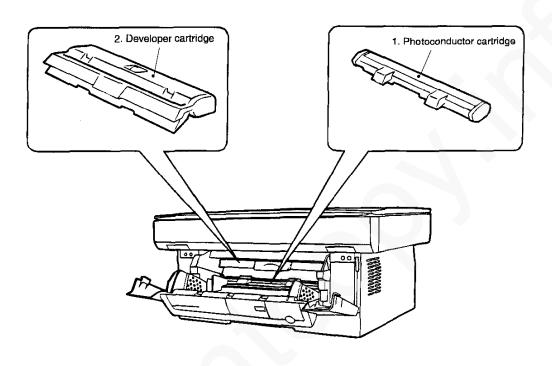
(5) Atmospheric pressure

(6) Standard condition

20 to 25°C 65±5% RH, Rating for different countries

[3] CONSUMABLE PARTS

1. Configuration



No.	Part name (Item)
1	Photoconductor cartridge
2	Developer cartridge

2. List

A. Consumable parts for exclusive use

(Destination) XEROX (North America)

			(Compound form)		-			
No. Part name (Item)	Model name	Content			Note			
			Parts item	Q'ty	Life	Model name	Q'ty	
1	Photoconductor cartridge	13R553N	Photoconductor cartridge	1	20K		10	
2	Developer cartridge	6R916N	Developer cartridge	1	зк		3	

(Destination) XEROX (Europe)

		(Compound form)						
No. Part name (Item)		Model name	Content			(Compound form)		Note
		Parts item	Parts item	Q'ty	Life	Model name	Q'ty	
1	Photoconductor cartridge	13R553W	Photoconductor cartridge	1	20K		10	
2	Developer cartridge	6R916W	Developer cartridge	1	зк		3	

(Destination) XEROX (Other countries)

			(Single form)		(Compound form)		Note	
No.	Part name (Item)	Model name	Content			(Oompound		ionin)
L		Wodername	Parts item	Q'ty	Life	Model name	Q'ty	
1	Photoconductor cartridge	13R554	Photoconductor cartridge	1	20K		10	
2	Developer cartridge	6R917	Developer cartridge	1	ЗК		3	

3. Details

(1) Photoconductor drum

		Specifications/Descriptions						
Part name	Photoconductor cartri	Photoconductor cartridge						
Model name (Single unit)	13R53N/13R553W/1	3R554			Quantity	1		
Model name				-	Quantity	10		
(Compound form)								
Photo (Picture)								
Type (Kind)	OPC							
Form	Cartridge	1 41 410						
Life	Print quantity							
	Effective use period	36 months from pr	roduction when se	ealed, or 2	0 months when	unsealed. (Shorter one, max. 36		
Weight/Capacity/	Weight	Single unit	Weight (g/kg)	241 g	Weight (lbs)			
Quantity		Compound form	Wright (g/kg)		Weight (lbs)			
	Quantity	Single unit						
		Compound form						
	Capacity	(Litter)						
Applied model	XE-60/80 series							
Compatibility information								
Product No. content								
	Version Fixe Production yes (End digit)	produ	uction month mo 0: Oc X: No	oduction inth ctober ovember ecember				

(2) Developer cartridge

ltem		Specifications/Descriptions						
Part name	Developer cartridge							
Model name (Single unit)	6R916N/6R916W/6R917				Quantity	1		
Model name (Compound form)					Quantity	3		
Photo (Picture)		~						
Type (Kind)	1.5-component toner							
Form	Cartridge							
Life	Print quantity	3K (A4, 5% densit	y)					
	Effective use period	24 months from the production month when sealed, or 12 months when unsealed. (Shorter one, max. 24 months)						
	Others							
Weight/Capacity/	Weight	Single unit	Weight (g/kg)	473 g	Weight (lbs)			
Quantity		Compound form	Wright (g/kg)		Weight (lbs)			
	Quantity	Single unit				*		
		Compound form						
	Capacity		90 g					
Applied model	XE-60/80 series	1						
Compatibility information								
Product No. content	Production place Production year (End digit)	Version Production day	Production month ion 0: October X: November Y: December					
Guarantee period	(Month)	Counted from the production month. Stored under the storage environment conditions (sealed).						
Note	* Replace when print	density becomes lo	<u> </u>					

4. Paper specifications

To assure print quality and normal paper handling, the following specifications of paper should be satisfied.

(1) Paper

Standard and Applicable Paper

Item	Standard paper	Applicable paper
Weight	60 – 80 g/m²	60 – 120 g/m²
Smoothness	face; ≥ 20 s back; ≥ 20 s (BEKK method)	face; ≥ 20 s back; ≥ 18 s (BEKK method)
Porosity	≥ 7 s (BEKK method)	same as left
Opacity	≥ 77%	same as left
Surface resistivity	$1 \times 10^{10} - 5 \times 10^{10}$ (20 ± 1°C	65 ± 2% RH)
Stiffness	vertical; ≥ 17 cm horizontal; ≥ 13 cm (CLARK method)	same as left
Moisture content	4.5% – 7.0%	same as left
Thickness	75 μm – 110 μm	same as left
Dimension	B4 $(257 \pm 1 \times 364 \pm 1 mm)$ B5 $(182 \pm 1 \times 257 \pm 1 mm)$ B6 $(128 \pm 1 \times 182 \pm 1 mm)$ A3 $(297 \pm 1 \times 420 \pm 1 mm)$ A4 $(210 \pm 1 \times 297 \pm 1 mm)$ A5 $(148 \pm 1 \times 210 \pm 1 mm)$ A6 $(105 \pm 1 \times 148 \pm 1 mm)$ 11" $\pm 5/128 \times 17$ " $\pm 5/128$ " 8.5" $\pm 5/128 \times 14$ " $\pm 5/128$ " 8.5" $\pm 5/128 \times 11$ " $\pm 5/128$ " 5.5" $\pm 5/128 \times 13$ " $\pm 5/128$ " 8.5" $\pm 5/128 \times 13$ " $\pm 5/128$ " 8.5" $\pm 5/128 \times 13$ " $\pm 5/128$ "	same as left

(Paper Types That Should Not be Used)

Paper that has any of the following should not be used for printing.

- Paper with special coating on the surface
- Paper with particularly rough or smooth surface
- Paper which has been glued together and which could become separated.
- Paper with tears, folds, embossing, dryness, moisture or curl
- Paper with metal tabs or clips
- Paper with holes, windows or perforations
- Paper which has been pre-printed using a laser printer or photocopier

(Note) Before printing, try one of the pieces of paper to be used and confirm that it can be printed successfully.

(Values at 20 \pm 1°C, 65 \pm 2% RH)

(2) Envelope

Size	Dimensions	Weight		
International DL	110 × 220 mm	60 g/m² (16 lbs.) to 90 g/m² (24 lbs.)		
International C5	162 × 229 mm	Same as above		
Monarch	3-7/8" × 7-1/2"	Same as above		
Commercial 10 (business)	4-1/8" × 9-1/2" (104.78 × 241.3 mm)	Same as above		

Envelopes

Do not use envelopes which have any of the following.

- · Metal tabs, snaps, strings, perforations, windows or holes
- · Open flaps on which adhesive is exposed
- Glossy surfaces
- · A particularly rough texture or embossing
- Envelopes made from recycled paper
- Envelopes that are not flat due to damage, folds or bending, c which are not straight with square corners
- · Envelopes which are curled
- Two or more flaps
- · Labels that have already been attached
- · Flaps that have not been folded
- · Creases or folds on the leading edge
- Adhesive that sticks without moisture when pressed closed
- Envelopes that stick together due to exposed adhesive
- Envelopes that have already been printed on in a laser printer
- Envelopes that expand or shrink without fine creases
- Envelopes which are inflated with air

(3) OHP film

A4 (210 × 297 mm) Letter size (8.5" × 11")

5. Standard density sample

The ratio of the image area for the total area of paper is 4%. The life of every consumable part is based on this ratio.

Standard density sample

SHARP

TEST SHEET B

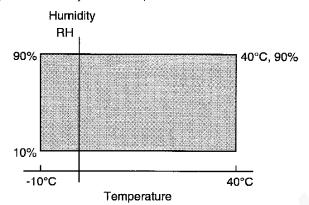
- 1912 Chairman Tokuji Hayakawa sets up business as a metal worker in Tokyo.
- 1924 New plant constructed at site of present Sharp head office to replace original Tokyo plant destroyed in great Kanto Earthquake of 1923.
- 1925 Sharp succeeds in assembling Japan's first crystal radio set.
 Radio broadcasting started in Japan.
- 1931 Sharp launches TV research. Initiates first step toward television in Japan.
- 1951 Japan's first television set manufactured with Sharp's advanced super-wave technology.
- 1960 Nara plant constructed as a base for producing electronic components and related industrial equipment in preparation for the electronic age. Mass-production of color television starts. Color television broadcasting starts in Japan.
- 1961 Central Research Laboratory completed. Serves as an impetus for the development of electronic technology.
- 1962 Sharp Electronics Corporation established in New Jersey as US subsidiary. Japan's first mass-production of microwave oven begins.
- 1964 World's first solid state electronic desk-top calculator "Compet" developed.
- 1966 World's first IC-applied electronic desk-top calculator developed. World's largest solar battery installed in unmanned lighthouse in Japan.
- 1968 Sharp Electronics (Europe) GmbH established in Hamburg.
- 1969 ELSI (Extra Large Scale Integration) developed for commercial application by Sharp through a technical tie-up with North American Rockwell.

 Sharp Electronics (U.K.) Ltd. established in the United Kingdom.
- 1970 Construction of Sharp Advanced Development and Planning Center (ELSI plant, Central Research Laboratory, Training Center and Guest House) completed.
- 1974 PPC (Plain Paper Copier) "SF-710" put on sale.
 Sharp Electronics of Canada Ltd. established in Canada.
- 1977 PPC "SF-730" with a single component toner and Pressure Fixing Process marketed.
- 1978 PPC "SF-810", capable of copying up to 11" × 17" or A3 size maximum at copying speed of 22 copies a minute (letter or A4 size), developed and marketed.
- 1979 PPC "SF-740" marketed. SF-740's grip feeder system permits copying on paper sizes from $10'' \times 14''$ (B4) down to $5\frac{1}{2}'' \times 8\frac{1}{2}''$ (A6). Its two print buttons, "NORMAL PAPER" and "HEAVY PAPER", permit copying on papers from 17 lbs (65 g/m²) to 34 lbs (128 g/m²) through changing the fusing temperature.
 - The manual by-pass allows for copying on heavy and special papers.

6. Environmental conditions

(1) Transit environment (sealed)

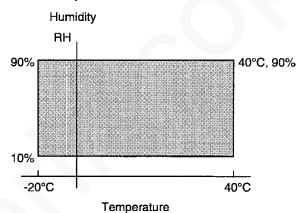
Max. change: Temperature 15°C/hour, Relative humidity 15%RH/hour, without dew



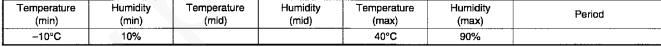
Temperature (min)	Humidity (min)	Temperature (mid)	Humidity (mid)	Temperature (max)	Humidity (max)	Period
−10°C	10%			40°C	90%	

(2) Storage environment (sealed)

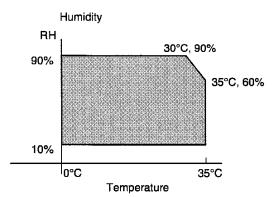
Max. change: Temperature 15°C/hour, Relative humidity 15%RH/hour, without dew



Temperature Humidity Temperature Humidity



(Unsealed condition)



Temperature (min)	Humidity (min)	Temperature (mid)	Humidity (mid)	Temperature (max)	Humidity (max)	Period
0°C	10%	30°C	60%	35°C	90%	

[4] **SET UP**

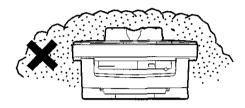
1. Installing conditions

miproper installation may damage the copier. Please note the following during initial installation and whenever the copier is moved.

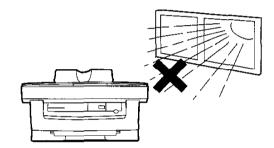
CAUTION: If the copier is moved from a cool place to a warm place, condensation may form inside the copier. Operation in this condition will cause poor copy quality and malfunctions. Leave the copier at room temperature for at least 2 hours before use.

Do not install your copier in areas that are:

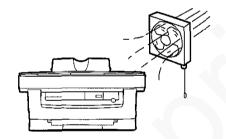
· damp, humid, or very dusty



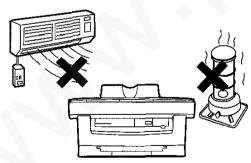
· exposed to direct sunlight



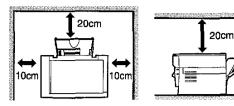
poorly ventilated



 subject to extreme temperature or humidity changes, e.g., near an air conditioner or heater.



Be sure to allow the required space around the machine for servicing and proper ventilation.



A small amount of ozone is produced within the copier during operation. The emission level is insufficient to cause any health hazard.

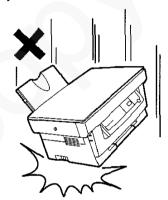
NOTE: The present recommended long term exposure limit for ozone is 0.1 ppm (0.2 mg/m³) calculated as an 8 hr. Time-weighted average concentration.

However, since the small amount that is emitted may have an objectionable odor, it is advisable to place the copier in a ventilated area.

CAUTIONS ON HANDLING

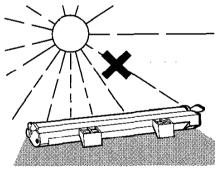
Be careful in handling the copier as follows to maintain the performance of this copier.

Do not drop the copier, subject it to shock or strike it against any object.



Do not expose the drum cartridge to direct sunlight.

Doing so will damage the surface (green portion) of the drum cartridge, causing smudges on copies.



Store spare supplies such as drum cartridges and TD cartridges in a dark place without removing from the package before use.

If they are exposed to direct sunlight, smudges on copies may result.

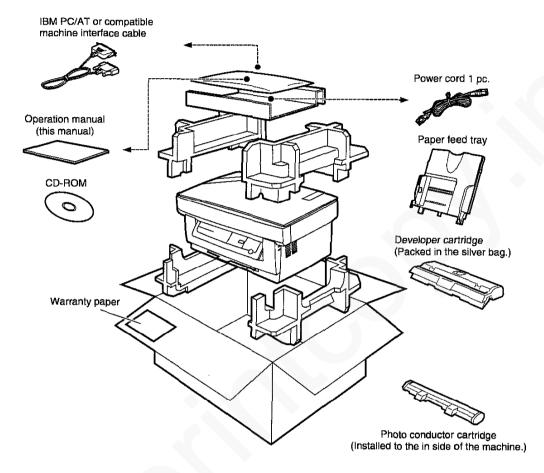
Do not touch the surface (green portion) of the drum cartridge.

Doing so will damage the surface of the cartridge, causing smudges on copies.

2. Unpacking

A. packing list

Open the carton and check if the following components and accessories are included.

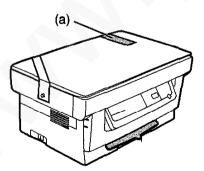


B. Releasing lock

REMOVING PROTECTIVE PACKING MATERIALS

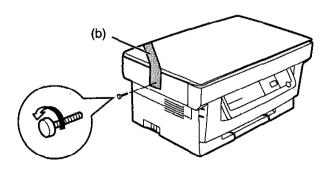
1) Remove tape (a).

Be sure to open the front cover before removing the protective packing materials.



Turn and remove the fixing screw in the arrow direction, and remove the protective material (b).

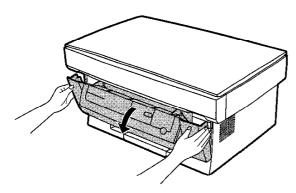
CAUTION: Save the screw because it will be used if the copier has to be moved. (p. 14)



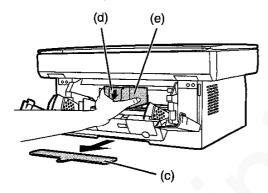
3. Parts and consumable parts setup

(1) Developer cartridge

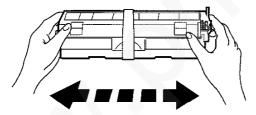
1) Push gently on both sides of the front cover to open the cover.



2) Remove the protective material (c), and slowly pull the protective sheet (d) and protective material (e) together toward you to remove. Be careful not to break the protective sheet (d) midway and not to remain torn part inside the machine.

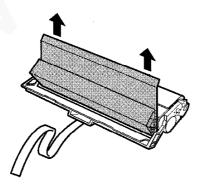


3) Remove the TD cartridge from the bag. Hold the cartridge on both sides and shake it horizontally four or five times.

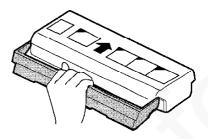


CAUTION: Be sure to remove the protective paper from the drum cartridge before installing the TD cartridge.

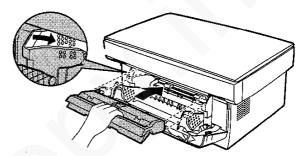
4) Remove the protective tape and then the protective cover.



Hold the handle of the TD cartridge so that the stamped marking on top of the cartridge are facing upward.

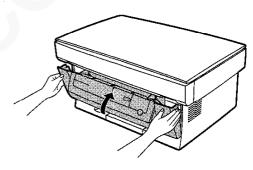


Gently insert the TD cartridge into the copier along the guides in the direction indicated by the arrow.



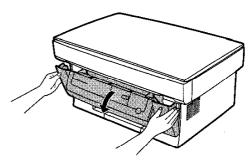
Align the projections on both side with the guides.

Close the front cover.



(2) Photoconductor cartridge

1) Gently press the both sides of the front cover and open it.



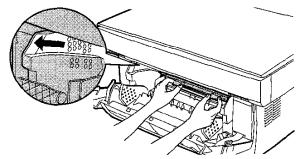
2) Slowly remove the developer cartridge from the copier.

 Hold two knobs of the photoconductor cartridge with your fingers, and slowly insert it into the copier.

WARNING: The fusing section is heated to a high temperature.

When removing the photoconductor cartridge, be caretul not to touch the fusing section to avoid a burn.

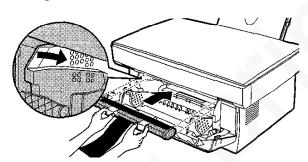
CAUTION: Dispose the photoconductor cartridge as an incombustible.



4) Remove a new photoconductor cartridge from the bag.

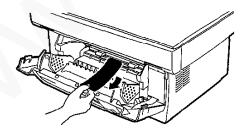
CAUTION: • A black protective sheet is attached to a new photoconductor cartridge in order to protect the cartridge from light. Install the cartridge in the copier with this black sheet attached to it. If it is removed, the cartridge surface (green section) may be damaged.

- Keep the photoconductor cartridge in a clean place. If it is stored in a dusty place, the cartridge surface (green section) may be damaged to cause a dirt on print paper.
- 5) Hold the two knobs of the photoconductor cartridge with your fingers, and slowly insert the projections on the both ends of the cartridge into the machine along the guides in the arrow direction.



Remove the black protective sheet from the photoconductor cartridge.

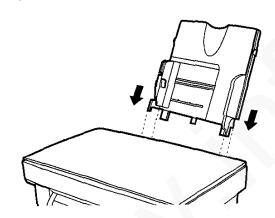
CAUTION: If the black protective sheet is pulled forcibly, it may be broken, Be careful not to break the sheet and slowly remove it.



- 7) Install the developer cartridge.
- 8) Turn on the power switch. While pressing the copy density key, open and close the operation panel section. (The photoconductor counter is reset by the above operation.)

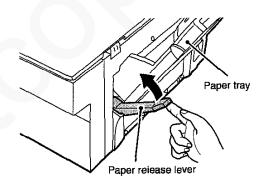
(3) Paper tray

 Hold the paper tray so that the paper guide of the paper tray is facing front and then insert the paper tray into the copier's paper tray slots.

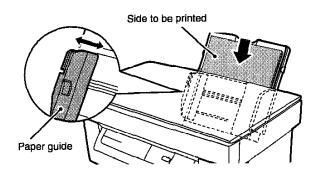


Pull the paper release lever at the right of the paper tray toward you.

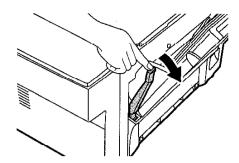
CAUTION: If the paper is inserted without doing this, paper misfeeds will occur.



3) If extra-long paper (such as legal size) is used, raise the paper support to support the paper. Fan the copy paper and place it into the paper tray with the side to be printed facing toward you. Position the paper along the right end of the paper tray. Then adjust the paper guide to the paper width.



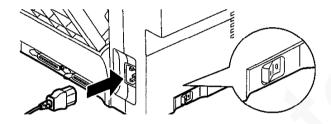
 Make sure the paper release lever is pushed back. The paper will be clamped by the paper feed roller inside the copier.



4. Cable connection

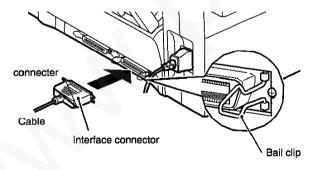
(1) Power cable

Ensure that the power switch of the copier is in the OFF position. Insert the attached power cord into the power cord socket at the rear of the copier.



(2) Interface cable

- Check that the power switches of both the printer and the computer ate in the OFF position.
- 2) Plug the parallel interface cable into one of the printer interface connectors (whichever connector you want to use). Fasten the two bail chips at the side of the printer connector to hold the interface connector in place.



Plug the other end of the cable into the parallel interface connector of your computer.

CAUTION: The printer sends and receives data bi-directionally and at high speed. Some switch boxes and pass-through devices cannot support high-speed, bi-directional transfer of data, and using them may cause printing errors.

CAUTION: Some printer selectors (which allows to use two or more computers and printers by selection) are not compatible to this machine.

5. INSTALLING THE PRINTER DRIVER SOFTWARE

(1) Checking the hardware and software requirements

You will need the following hardware and software in order to install the printer driver.

Computer type IBM PC/AT or compatible computer

equipped with a bi-directional parallel

interface

Windows type Windows 3.1x, Windows 95,

Windows NT 4.0

CPU 486DX 66 MHz or better

Physical RAM 8 MB or more Virtual storage (swap file) 8 MB or more

Display 640 × 480 dots (VGA) or better

Hard disk free space 4 MB or more

 Is there another GDI printer driver or Windows Printing System printer driver already installed? If installed, delete it. (The printer driver of this printer cannot be used with another printer driver or Windows Printing System of another printer.)

If you are using some of your computer's memory as a RAM drive, the printer driver may not be allocated the correct amount of memory. In such a case, reduce the size of your RAM disk, or do not use the RAM disk.

Installing the printer driver

The software for your printer is provided on CD-ROM which was packed with your laser printer.

Before installing the printer driver, be sure to check the following items.

(2) Install

Windows 3.1x:

- 1) Turn on the printer and then start Windows on your computer.
- 2) Insert the installation CD-ROM into a CD-ROM drive.
- Choose File from the Menu bar in Program Manager, and then choose the Run...command.
- 4) Type R:\SETUP (if the CD-ROM is inserted into drive R) in the command line box and then click on the OK button.
- 5) Follow the on-screen instructions.
- 6) When the installation is complete, restart Windows.

Windows 95/Windows NT 4.0:

- Load paper into the paper tray of the printer. For loading of paper, see the section of LOADING COPY PAPER of the operation manual for the copier features.
- Turn on the printer.
- 3) Start Windows on your computer.

NOTE: Before installing the printer driver, be sure to close all other applications which may be open.

- 4) If you use Windows 95 on a personal computer with plug & play* feature, the screen shown below will appear. Click the Driver from Disk Provided from Hardware Manufacturer button and then click OK. Proceed to step 6.
- 7) The installation program will start. Click OK.

- If you use Windows 95 and the Device Driver Wizard window appears, insert the installation CD-ROM into a CD-ROM drive. Then click the Next button and follow the on-screen instructions until the screen in step 7 appears. If the File Copy window appears during this operation, enter R:\ (if the CD-ROM is inserted into drive R) and click the OK button.
- If you use Windows 95 and the screen shown above or the Device Driver Wizard window does not appear, proceed to step 5.
- If you use Windows NT 4.0, proceed to step 5.

CAUTION: The screen to be displayed depends on the version of Windows.

5) Insert the installation CD-ROM into the CD-ROM drive.

Click the Start button and select Run. When the screen shown below appears, type [drive name]:SETUP (If the CD-ROM is inserted into drive R, type R:\SETUP.) and click the OK button. Proceed to step 7.

 When the installation is complete, you will be asked whether or not to print a test page. If you wish to do so, click the Yes button.

At this time, ensure that paper is loaded in the paper tray.

A screen for checking the printer port to be used will appear.
 Normally, LPT1 is automatically set. When connecting the

printer through a network, select the proper port.
Then check the "Normally Used Printer" box.

Finally click the install box.

6) Installation from CD-ROM window will appear. Insert the installation CD-ROM into the CD-ROM drive. Type [drive name]: SETUP (If the CD-ROM is inserted into drive R, type R:\SETUP.) and click the OK button.

10) If the test print is successfully complete, click OK. Otherwise click No and check the cause and remedies. The installation of the printer is now complete.

XC printer group

When the printer driver is installed, the XC printer driver group will be created.

This group allows "Deletion of Printer Driver" and "Release Note" to be displayed.

Deletion of printer Driver

The printer driver can be deleted. If the driver is deleted, printing cannot be performed on the printer.

Release Note

The latest information on the printer driver is included in this note. Read the release note first.

(3) DELETING PRINTER DRIVER

If the printer driver is not installed properly or if you need not use this printer any more, delete the printer driver from your computer using the following procedure.

- Click Start, Program, XC Printer Group, and Deleting Printer Driver.
- When the Deleting XC Printer Driver dialog box appears, click the OK button.
- When the XC Printer Driver Deletion Status window appears, click the Restart Windows button.
- The Windows will restart. If the XC Printer Driver Deletion Status window appears again, click the OK button.

(4) NOTE

TO USE OTHER PRINTERS TOGETHER

If you use another GDI printer or a Windows Printing System printer, interference between printers may occur and printing may not be performed properly.

To use another GDI printer or a Windows Printing System printer, you must change the port setting of the printer driver using the following procedure.

- NOTE: If another printer does not operate properly when the XC printer driver is set to "File", delete the XC printer driver.
 - If you set "Normally used printer" in the installation of the XC printer driver, the XC printer driver will be automatically set for the parallel port which can be used (for example, LPT1). At this time, all printer drivers which have been connected to this port will be automatically set to "File".
- 1) Click the Start button.
- 2) Select Settings and then click Printers.
- Right-click the XC printer icon in the printer dialog box and then click Properties.
- 4) Click the Details tab in the Properties dialog box, select FILE: in the Print Destination Port list box, and click the OK button.
- 5) Right-click the icon of the printer to be used and click Properties.
- Click the Details tab in the Properties window, select LPT1 (or the currently used port), and click the OK button.

[5] EXTERNAL VIEW AND INTERNAL STRUCTURE

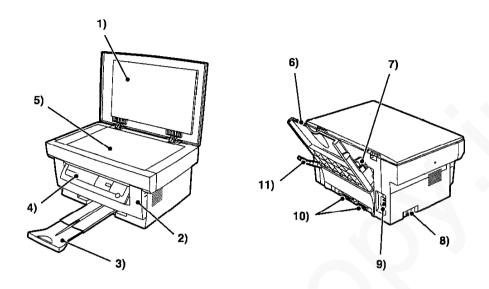
1. List

Α	External, operation parts	(1)	External, operation parts				
		(2)	Internal operation parts				
		(3)	Operation, display parts				
В	B Internal parts		Parts in each section	а	Operation section		
				b	Paper feed, transport section		
				С	Optical section	<1>	Scanner (reading) section
						<2>	Scanner (writing) section
				d	Image process section	<1>	OPC drum section
						<2>	Developing section
						<3>	Transfer, separation section
				e	Fusing, paper exit section		
				f	Drive section		
				g	Printer section		
				h	Cross sectional view		
C	Lock position						
D	Functional parts	(1)	Sensor, detector				
		(2)	Switch				
		(3)	Clutch, solenoid				
		(4)	Motor	а	Drive motor		
	<u> </u>			b	Fan (motor)		
		(5)	PWB				
		(6)	Fuse, thermostat				
		(7)	Lamp				·
		(8)	Interface (connector)				
		(9)	Belt, wire				
		(10)	Power				
		(11)	Adjustment volume				-

2. Contents

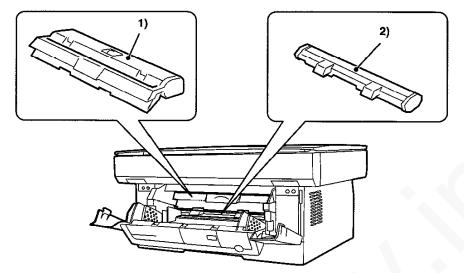
A. External, operation parts

(1) External, operation parts



No.		Parts	Model	Note		
140.	Name	Function/Operation	IVIQUEI	Note		
1	Document cover			The AE-80/82/84 is provided with the work organizer		
2	Front cover	Opened when installing or removing the OPC cartridge and the developer cartridge or removing a paper jam.	Common			
3	Paper exit tray	Receives printed paper. (Capacity; XXX sheets)	Common			
4	Operation panel	Allows various setting in the copy mode and test command operations.		Differs between models with the printer function and models without the printer function.		
5	Document table	A document is set to the left corner reference.	Common			
6	Paper feed tray	Sets print paper. (Capacity: XXX sheets)	Common			
7	Paper guide	Adjusts the paper width.	Common			
8	Power switch	Turns on/off the main power.	Common			
9	Power connector	Connects with the AC power cord.	Common			
10	Printer interface connector	Connects with the host computer. (Parallel interface) (IEEE-1284)	AE-80/82/84	Allows connection with one (two) host computer(s). Printer model only.		
11	Paper release lever	Put the lever straight when setting paper to release paper feed drive. Put the lever down to allow paper feed.	Common			

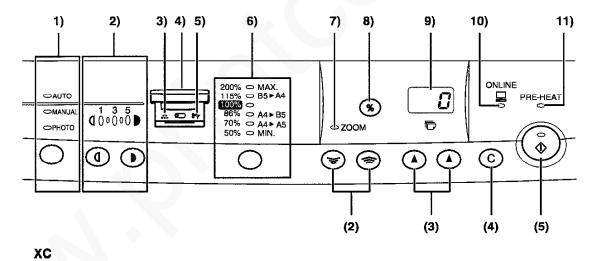
(2) Internal operation parts



No.	Parts		Model	Note	
INO.	Name	Function/Operation	Wiodei	Note	
1	Developer cartridge	Converts latent electrostatic images into visible images (toner images).	Common	Life (3K print)	
2	OPC cartridge	Forms latent electrostatic images.	Common	Life (2K print)	

(3) Operation, display parts

SC



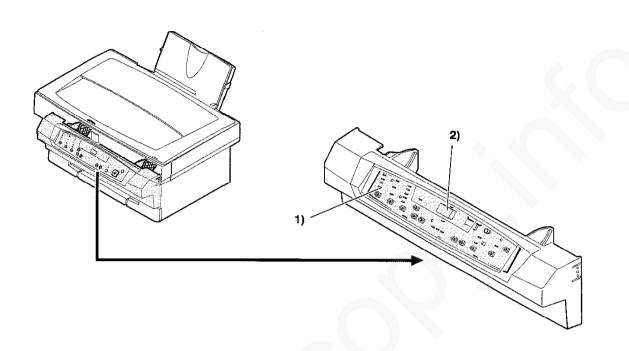
16) 10) 11) 14) 8) 9) DOCUMENT WOIK Centre ۿ **► 129**% . • [] ► 0 0 0 ► 100% ⊒►雷 (2) (A) 9 13) 15) 5) 4) 3)

No.		Parts	Model	Note
	Name	Function/Operation		
1	Copy image mode select key/Copy image mode display lamp	Selects the copy image mode in auto, character, photo, toner save mode. Displays the copy image mode.	Common	
2	Copy density adjustment key/Copy density level display lamp	Selects the copy density. Used to set the power save mode. Displays the copy density mode (level).	Common	
3	Developer cartridge warning lamp	Turns on or blinks to show that the consumable part (developer cartridge) must be replaced.	Common	Turns on when there is little toner, and blinks when there is no toner to disable printing.
4	OPC cartridge warning lamp	Turns on or blinks to show that a consumable part (developer cartridge, OPC cartridge) or that there is a paper jam.	Common	At 19,000 print, the lamp lights up to show the life is up. At 20,000 print, the lamp lights up to disable printing.
5	Paper jam warning lamp	Turns on or blinks when there is a paper jam.	Common	
6	Copy magnification ratio select key/Copy magnification ration display lamp	Selects the copy magnification ratio.	Common	
7	Zoom mode display lamp	Turns on when the zoom key is used to set the coy magnification ratio.	Common	
8	Copy magnification display key	Used to display the copy magnification ratio set by the zoom key on the value display.	Common	
9	Value, code display LED	Displays the value information (copy quantity, copy magnification ratio, etc.) and codes (error code, test command code and its information).	Common	
10	On-line lamp	Turns on during operation in the printer mode. (Print data is received from the host in the printer enable state or during printing.)	AE-80/82/84 (All models for SC)	Printer models only
	On-line key (XC only)	Turns to off-line or on-line forcibly.		XC specifications
11	Pre-heat mode display	Blinks in the pre-heat mode.		SC specifications
	lamp	Blinks in the pre-heat mode. Turns on when in print ready state.		XC specifications
12	Zoom key	Sets the copy magnification ratio in the range of 50% ~ 200% by the increment of 1%.		
13	Value setting key	Used to input various set values (copy quantity, test command setting, power save mode setting, etc.). Used to set the power save mode.		
14	Clear key	Cancels various setting and operations.		
15	Start key	Starts operations and stores various set data.		
	Ready lamp (SC only)	Turns on when in print ready state.		SC specifications
16	Paper feed monitor lamp (XC only)	Turns on when there is paper on the paper feed tray. Blinks when there is no paper on the paper fed tray or there is a misfeed.		XC specifications

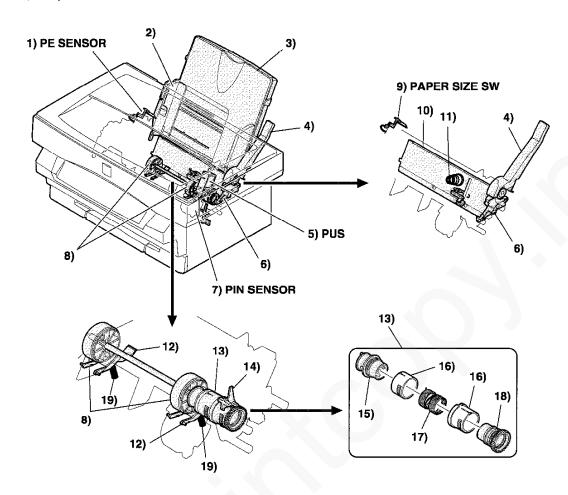
B. Internal parts

(1) Parts in each section

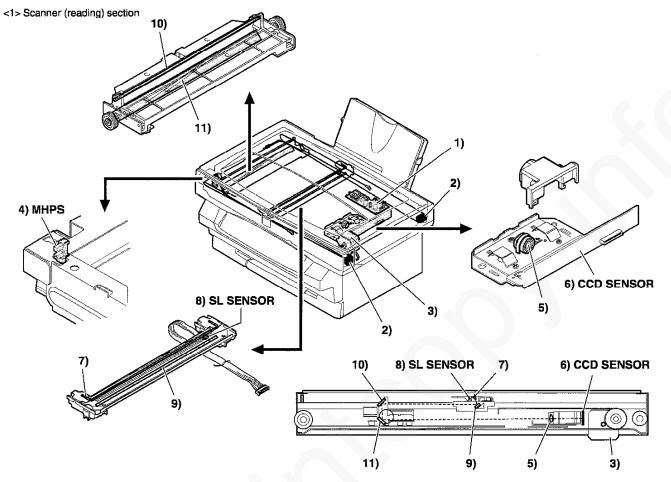
a. Operation section



No.		Parts	Model	Note
140.	Name	Function/Operation	Wode	Note
1	Operation control PWB	Displays various number information and messages. Outputs the key operation signal.		Differs between models with the printer function and models without the printer function.
2	Number display	Displays various value information and messages.		

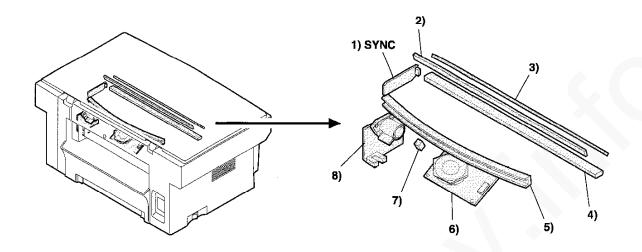


No.	Code	Signal name	Name	Parts Type	Function/operation	Active condition	Note
1	PE SENSOR	PEMP IN	Paper empty detector	Photo transmission sensor	Detects paper on the paper tray.	LOW (0V) when paper is detected.	
2			Paper guide		Adjust the paper width.		
3			Paper feed tray		Sets the print paper. (Capacity: XXX sheets)		
4			Paper release lever		Put this lever straight to set paper to release paper feed. Put this lever down to enable paper feed.		
5	PUS	PUS	Paper feed clutch solenoid		Controls (on/off) the main motor drive for the paper feed roller.		
6			Paper feed release lever		When the paper feed lever is put straight, this lever releases paper feed solenoid drive. This parathion reduces stress to the paper feed roller clutch in removing paper.		
7	PIN SENSOR	PIN	Paper in detector	Photo transmission sensor	Detects whether the fed paper is transported to the transfer position or not. By the timing of this detector signal, the relative positions of paper and print image are controlled.	LOW (0V) when paper is detected.	
8			Paper feed roller		Feeds paper.		
9	PAPER SIZE SW	PAPER SIZE IN	Paper width detector	Mechanical switch (Micro switch)	Detects the paper width. This signal controls the laser beam radiation area.	LOW (0V) when the max. width is detected.	
10			Paper pressure plate		Presses paper onto the paper feed roller.		
11			Paper pressure spring		Presses paper onto the paper feed roller.		
12			Paper separator		Separates paper in paper feed operation.		
13			Paper feed clutch	Mechanical spring type clutch	Controls ON/OFF of the paper feed roller. (The paper feed roller is driven by the paper feed clutch solenoid and the main motor.		
14			Paper feed clutch lever		Driven by the paper feed clutch solenoid to control ON/OFF of the paper feed clutch. Prevents against reverse rotation of the paper feed roller.		
15			Paper feed clutch joint		Links the paper feed roller and the paper feed roller clutch.		
16			Paper feed clutch sleeve		Controls ON/OFF of the paper feed roller. (The paper feed roller is driven by the paper feed clutch solenoid and the main motor.)		
17			Paper feed clutch spring		Transmits the paper feed clutch rotation to the paper feed clutch sleeve.		
18			Paper feed clutch gear		Transmits the main motor power to the paper reed roller.		
19			Paper separater spring		Applies a proper pressure to the paper separater.		



No.				Parts			Note
NO.	Code	Signal name	Name	Туре	Function/operation	Active condition	Note
1			Scanner lamp control PWB		Drives the scanner lamp. Maintains the lamp light quantity at a constant level.		
2			Scanner drive wire		Transmits the scanner motor power to the scanner unit.		
3			Scanner motor		Drives the scanner unit.		
4	MHPS	MHPS	Scanner home position sensor	Photo transmission sensor	Detects the scanner home position. By this signal the image scanning operation is controlled.	HIGH (5V) when the home position is detected.	
5			Lens		Transfers the document image to CCD.		
6	CCD SENSOR	CCD OUT	CCD (Image) sensor	CCD	Scans the document images (photo signals) and converts them into electrical signals.	Digital signal (8Bit)	
7			Scanner lamp		Radiates light to the document to allow the CCD to scan the document images.		
8	SL SENSOR	PDA/PDK	Scanner lamp light quantity sensor	Photo diode	Detects the scanner lamp light quantity. This signal is inputted to the scanner lamp control PWB to control the scanner lamp drive voltage to maintain a constant level of light quantity.	Analog signal (0 ~ 0.5V)	
9			No. 1 mirror		Leads the document image to CCD.		
10			No. 2 mirror		Leads the document image to CCD.		
11			No. 3 mirror		Leads the document image to CCD.		

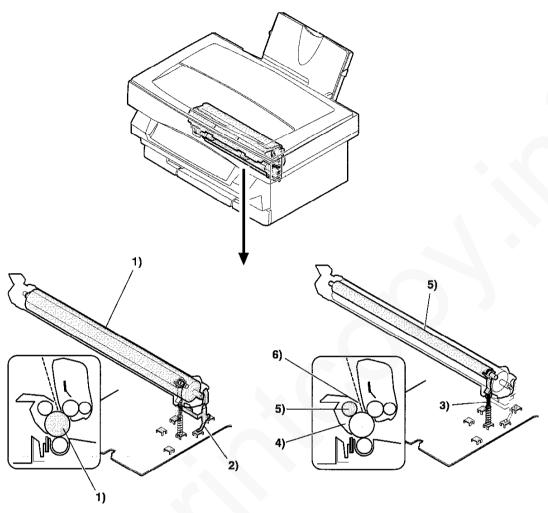
<2> Scanner (writing) section



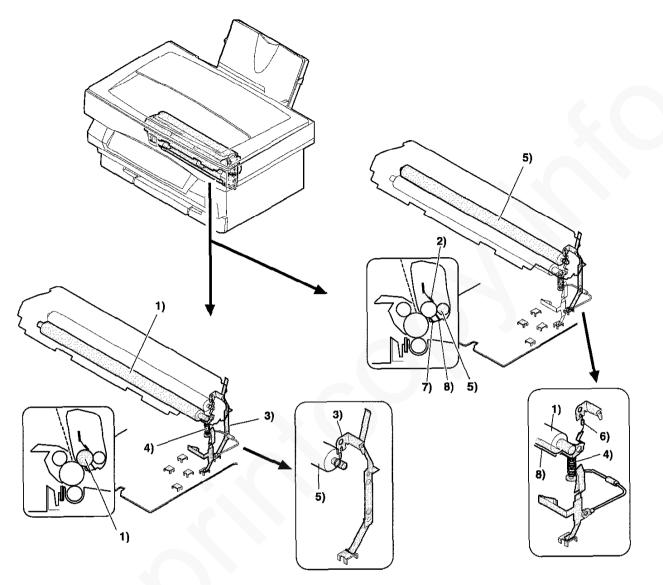
No.				Part	S		Note
IVO.	Code	Signal name	Name	Туре	Function/operation	Active condition	Note
1	SYNC	SYNC IN	Laser beam sensor	Bin diode	Detects the laser beam position. By this signal the left image print start position is controlled.	LOW (0V) when laser beam is detected.	
2			No. 1 mirror				
3			No. 3 mirror		Leads the laser beam to the OPC drum.		
4			Second cylindrical lens		Corrects the laser beam deflection by variations in the scanning mirror angle. Corrects the optical section dirt.		
5			F0 mirror (No. 2 mirror)		Corrects the laser beam form and pitch.		
6			Scanning mirror (rotation mirror)		Scans the laser beam and performs imaging.		
7			No. 1 cylindrical lens		Adjust the direction of laser beam.		
8			Laser diode		Generates laser beam. (Controls ON/OFF for imaging)		

d. Image process section

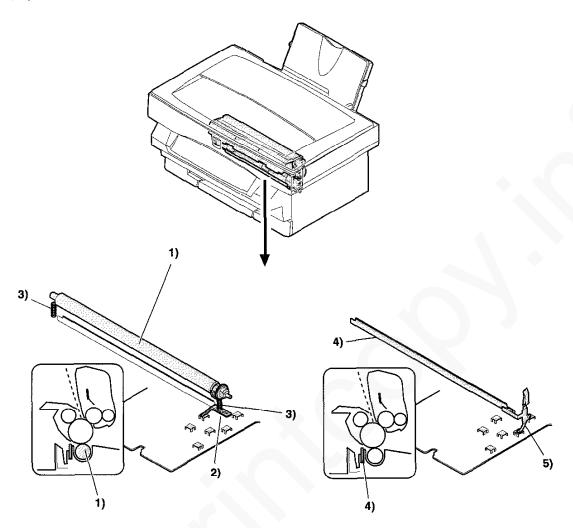
<1> OPC drum section



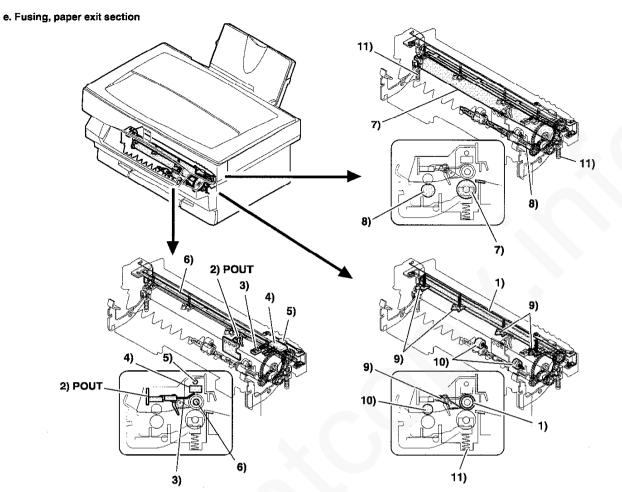
No.		Note			
NO.	Name	Туре	Function/operation	- Note	
1	OPC drum	OPC	Forms latent electrostatic images.		
2	OPC drum earth electrode		Connects the OPC drum aluminum layer and the earth (high voltage PWB).		
3	Main charger electrode		Connects the main charger output (high voltage PWB) and the main charger brush.		
4	Discharge brush		Discharges (lower the potential of) the OPC drum surface.	Japan only	
5	Main charger brush		Charges the OPC drum.		
6	Toner seal		Shield to prevent toner from leaking outside the OPC drum unit.		



		Parts					
No.	Name	Туре	Function/operation	Note			
1	Developing roller		Attaches toner to the latent electrostatic images on the OPC drum to convert it into a visible image.	··			
2	Developing doctor		Controls toner quantity on the developing roller and charges toner.				
3	Developing bias electrode		Connects the developing roller and the bias voltage output (high voltage PWB).				
4	Potential control electrode		Connects the developing roller and the bias voltage output (high voltage PWB).				
5	Toner stirring roller		Lead toner to the developing roller and charges toner.				
6	Zenor diode		Maintains the potential between the developing roller and the toner stirring roller at a constant level.				
7	Toner seal		Shields toner from leaking outside the developing unit.				
8	Potential control sheet		Maintains the developing roller potential at a constant level.				

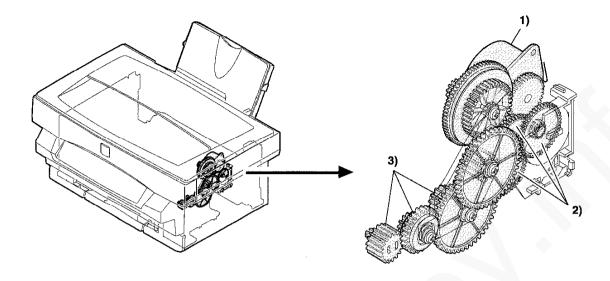


		Parts	Note
No.	Name	Function/operation	
1	Transfer roller	Transfers toner images on the OPC drum onto the paper.	
2	Transfer roller electrode	Connects the transfer roller and the transfer voltage output (high voltage PWB).	
3	Pressure spring	Applies pressure to the transfer roller, paper, and the OPC drum to improve transfer efficiency.	
4	Separation electrode	Reduces paper charging potential to facilitate separation of paper.	
5	Earth electrode	Connects the separation electrode and the earth (high voltage PWB).	



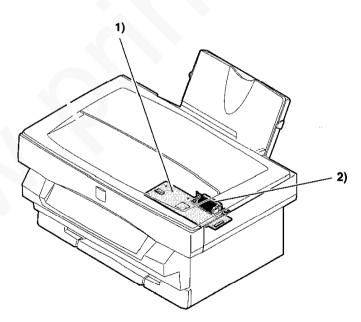
Nia				Parts			MODEL	Note
No.	Code	Signal name	Name	Туре	Function/operation	Active condition	MODEL	Note
1			Heat roller		Heats toner on the paper and fuses onto the paper.	LOW (0V) when paper is detected.		
2	POUT	POUT IN	Paper exit detector	Photo transmission sensor	Detects paper exit.			
3		RTH IN	Fusing temperature sensor	Thermistor	Detects the heat roller surface temperature.			
4			Temperature fuse 1 (Fusing section)	Mold	Assures safety in overheating.			
5			Temperature fuse 2 (Fusing section)	Mold	Assures safety in overheating.			
6		HL	Heater lamp	Halogen lamp	Heats the heat roller.		100V series	10V 500W
							120V series	120V 500W
							200V series	230V 500W
7			Pressure roller		Applies a pressure to the heat roller and paper to improve fusing efficiency.			
8			Paper exit roller		Discharges paper after fusing.			
9			Separation pawl		Separates paper from the fusing roller mechanically.			
10			Paper exit roller		Discharges paper outside the machine after fusing.			
11			Pressure spring		Applies a pressure to the heat roller, paper, and pressure roller to improve transfer efficiency.			

f. Drive section



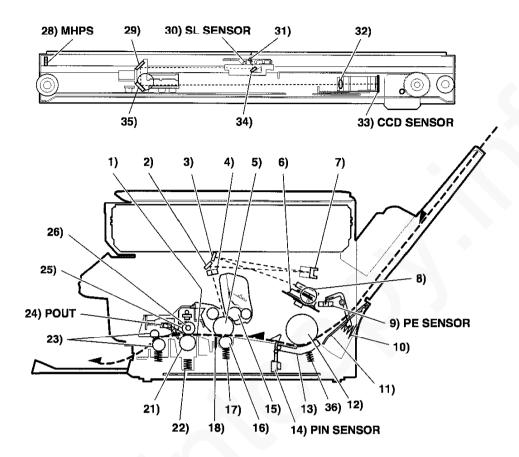
No.		Parts						
	Code	Signal name	Name	Туре	Function/operation	Note		
1	ММ		Main motor	Stepping motor (+24V)	Drives the paper feed section, the paper transport section, the fusing section, and the image process section.			
2			Paper feed section drive gear		Transmits the main motor power to the paper feed section.			
3			Imaging process, fusing section drive gear		Transmits the main motor power to the imaging process section and the fusing section.			

g. Printer section



No.		Parts	MODE	Note	
INO.	Name Type	Function/operation	on/operation MODEL		
1	ICU PWB		Converts print data sent from the host into bit image.	XE-80/82/84	Printer models only
2	Printer interface connector	IEEE1284 parallel interface (anphenol ???? 36PIN)	Connects with the host computer (parallel interface)(IEEE1284)	XE-80/82/84	Allows connection with one (two) host computer(s). Printer models only

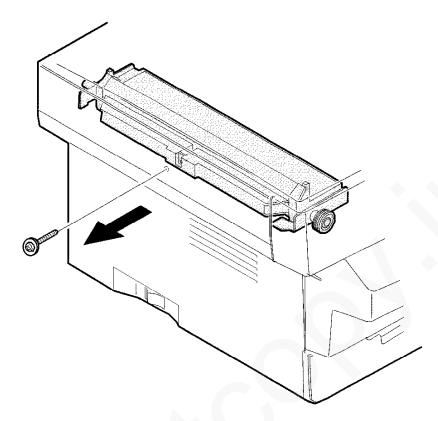
h. Cross sectional view



No.				Parts			Model	Note
NO.	Code	Signal name	Name	Туре	Function/operation	Active condition	Widdel	NOIG
1			Fusing temperature sensor	Thermistor	Detects the heat roller surface temperature.	Analog signal (2.0 ~5.0V)		
2			No. 3 mirror (LSU)		Leads the laser beam to the OPC drum.			
3		_	No. 1 mirror (LSU)				·	
4			No. 2 cylindricai lens		Corrects the laser beam deflection caused by variations in the surface angle of the scanning mirror. Also prevents agaist dirt in the optical section.			
5			OPC drum	OPC	Forms latent electrostatic images.			
6			Laser scanner		Scans laser beams to perform imaging.			
7			frror (No. 2 mirror) (LSU)		Corrects the laser beam form and pitch.			
8			Laser diode		Generates the laser beam. (Controls ON/OFF for imaging.)			
9	PE SENSOR	PEMP IN	Paper empty detector	Photo transmission sensor	Detects paper on the paper tray.	LOW (0V) when paper is detected.		
10			Paper pressure spring		Presses paper onto the paper feed roller at a proper pressure.			
11			Paper pressure plate		Presses paper onto the paper feed roller at a proper pressure.			
12	"		Paper feed roller		Feeds paper.			
13			Paper separator		Separates paper in paper feed.			

No.			,	Parts			Model	Note
14	PIN SENSOR	PIN	Paper in detector	Photo transmission sensor	Detects whether the fed paper is transported to the transfer position or not. By the timing of this detector signal, the relative positions of the paper and the print image are controlled.	LOW (0V) when paper is detected.		
15			Developing roller		Attaches toner to the latent electrostatic images on the OPC drum to convert them into visible images.			
16			Transfer roller		Transfers toner images on the OPC drum to paper.			
17		·	Transfer pressure spring		Applies a pressure to the transfer roller, paper, and the OPC drum to improve transfer efficiency.			
18			Separation electrode		Reduces the paper charging potential to facilitate separation of paper from the OPC drum.			
19			Temperature fuse 1 (fusing section)	Mold	Assures safety in overheating.			
20			Temperature fuse 2 (fusing section)	Mold	Assures safety in overheating.			
21			Pressure roller		Applies a pressure to the heat roller and paper to improve fusing efficiency.			
22			Fusing pressure spring		Applies a pressure to the heat roller paper, and the pressure roller to improve transfer efficiency.			
23			Paper exit roller		Discharges paper after fusing.			
24	POUT	POUT IN	Paper exit detector	Photo transmission sensor	Detects discharge of paper.	LOW (0V) when paper is detected.		
25		HL	Heater lamp	Halogen lamp	Heats the heat roller.		100V series	100V 500W
							120V series	120V 500W
							200V series	230V 500W
26			Heat roller		Toner on the paper is heated and fused onto the paper.			
27			Separation pawl		Separates paper from the fusing roller mechanically.			
28	MHPS	MHPS	Scanner home position sensor	Photo transmission sensor	Detects the scanner home position. By this signal the image scanning operation is controlled.	HIGH (5V) when the home position is detected.		
29			No. 2 mirror		Leads document images to CCD			
30	SL SENSOR	PDA/PDK	Scanner lamp light quantity sensor	Photo diade	Detects the scanner lamp light quantity. This signal is inputted to the scanner lamp control PWB to control the scanner lamp drive voltage to maintain a constant level of light quantity.	HIGH (5V) when the home position is detected.		
31			Scanner lamp		Radiates light necessary for the CCD to scan the document images.			
32			Lens		Transfers document images to CCD.			
33	CCD SENSOR	CCD OUT	CCD (image) sensor	CCD	Scans the document images (photo signals) and converts them into electrical signals.	Digital signal (8Bit)		
34			No. 1 mirror		Lead document images to CCD.			
35			No. 3 mirror		Lead document images to CCD.			
36			Paper separater spring		Applies a proper pressure to the paper separater			

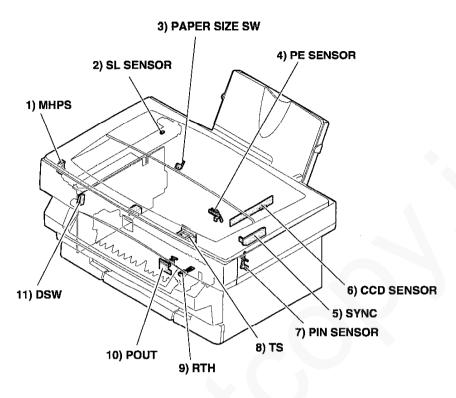
C. Lock position



No.		Parts	Note
140.	Name	Function/Operation	Note
1	Scanner lock screw	Locks the scanner unit.	Fixes the scanner unit with this screw when in transit.

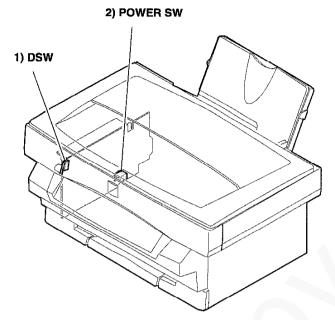
D. Functional parts

(1) Sensor, detector

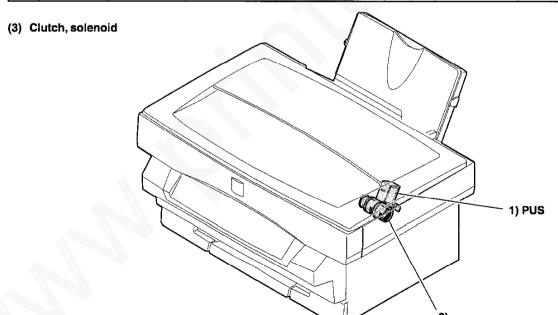


No.				Parts			Note
INU.	Code	Signal name	Name	Туре	Function/operation	Active condition	Note
1	MHPS	MHPS	Scanner home position sensor	Photo transmission sensor	Detects the scanner home position. This signal is used to control image scanning operation.	HIGH (5V) when the home position is detected.	
2	SL SENSOR	PDA/PDK	Scanner lamp light quantity sensor	Photo diode	Detects the scanner lamp light quantity. This signal is inputted to the scanner lamp control PWB to control the scanner lamp drive voltage to maintain a constant level of light quantity.	Analog signal (0 ~ 0.5V)	
3	PAPER SIZE SW	PAPER SIZE IN	Paper width detector	Mechanical switch (Micro switch)	Detects the paper width. This signal is used to control the laser beam radiation area.	LOW (0V) when the max. width is detected.	
4	PE SENSOR	PEMP IN	Paper empty detector	Photo transmission sensor	Detects paper on the paper tray.	LOW (0V) when paper is detected.	
5	SYNC	SYNC IN	Laser beam sensor	Bin diode	Detects the laser beam position. This signal is used to control the left image print start position.	LOW (0V) when laser beam is detected.	
6	CCD SENSOR	CCD OUT	CCD (image) sensor	CCD	Scans document images (photo signals) and converts them into electrical signals.	Digital signal (8Bit)	
7	PIN SENSOR	PIN	Paper in detector	Photo transmission sensor	Detects whether the fed paper is transported to the transfer position or not.	LOW (0V) when paper is detected.	
8	TS	TSIN	Toner empty sensor	Photo transmission sensor	Detects remaining toner in the developing cartridge.	HIGH (5V) when toner empty is detected.	
9	RTH	RTH IN	Fusing temperature sensor	Thermistor	Detects the fusing roller surface temperature.	Analog signal (2.0 ~ 5.0V)	•
10	POUT	POUT IN	Paper exit detector	Photo transmission sensor	Detects discharge of paper.	LOW (0V) when paper is detected.	
11	DSW	DSW	Front cover open/close switch	Micro switch	Turns on/off the +24V power line (power source for the motor, the high voltage PWB, and solenoids) when opening/closing the front cover for safety. (Detects open/close of the front cover at the same time.)	Close	

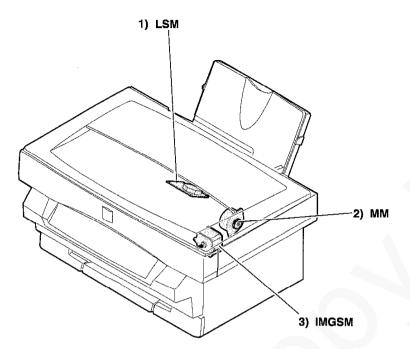
(2) Switch



No.				Parts			N1-4-
INO.	Code	Signal name	Name	Type*	Function/operation	Active condition	Note
1	DSW	DSW	Front cover open/close switch	Micro switch	Turns on/off the +24V power line (power source for the motor, the high voltage PWB, and solenoids) when opening/closing the front cover for safety. (Detects open/close of the front cover at the same time.)	Close	
2	POWER SW		Main power switch	Seesaw switch	Turns on/off the main power line. (ON/OFF of all power)	Close	

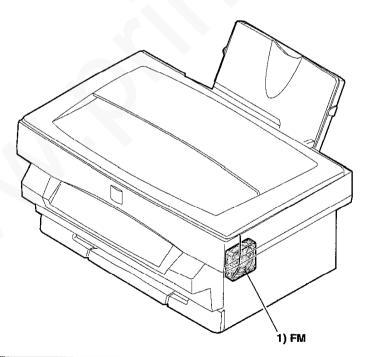


				Parts				
No.	Code	Signal name	Name	Type*	Function/operation	Active condition	MODEL	Note
1	PUS	PUS	Paper feed clutch solenoid	Solenoid	Controls ON/OFF of the paper feed roller. (The paper feed roller is driven by the paper feed clutch solenoid and the main motor.)	ON		Driven by +24V power.
2			Paper feed clutch	Mechanical spring type clutch	Controls ON/OFF of the paper feed roller. (The paper feed roller is driven by the paper feed clutch solenoid and the main motor.)	ON		



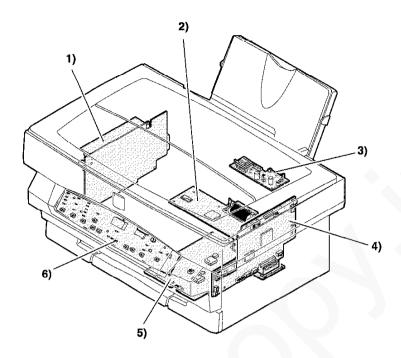
No.			Parts		N1-4-
INO.	Code	Name	Туре	Function/operation	Note
1	LSM	Laser scanning motor	DC brushless motor (+24V)	Drives the scanning mirror.	·
2	ММ	Main motor	Stepping motor (+24V)	Drives the paper feed section, the paper transport section, and the image process section.	
3	IMGSM	Scanning motor	Stepping motor (+24V)	Drives the scanner (reading) unit.	

b. Fan (motor)



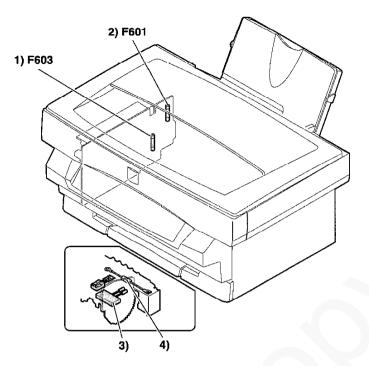
No.					
	Code	Name	Туре	Function/operation	Note
1	FM	Cooling fan motor	Propel (DC brushless motor) (+24V)	Cools inside the machine (the fusing section and the image process section).	

(5) PWB



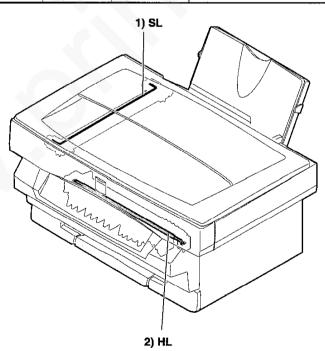
No.		Parts	MODEL	Note
NO.	Name	Function/operation	WIODEL	Note
1	Power PWB	Outputs DC power. Drives the heater lamp.		The voltage specification differs depending on the destination.
2	ICU PWB	Converts print data set from the host and converts it into bit image data and send to the MCU.	XE-80/82/84	Allows connection with one (two) host computer(s). Printer models only
3	Scanner lamp drive PWB	Controls light quantity of the scanner lamp.	Common	
4	MCU (PCU) PWB	Controls the image process section and the engine section.	Common	
5	High voltage power PWB	Outputs the high voltage for the image process section. Controls the main motor.	Common	
6	Operation control PWB	Displays the value information. Outputs the key operation signal.		Differs between models with the printer function and models without the printer function.

(6) Fuse, thermostat



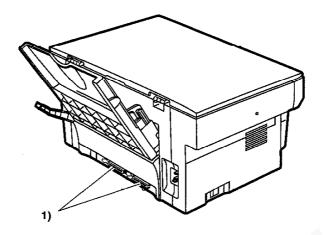
No.					Parts		MODEL	Note
	Code	Name	Form	Form	Specification	Function/operation	IVIODEL	MOTE
1	F603	Power unit fuse	Mini	Normal	5A 125V	Protects the power unit primary side circuit	100V series	
					3.15A 250V	against an overcurrent.	20V series	
2	F601	Power unit fuse	Mini	Normal	10A 125V	Protects the power unit primary side circuit	100V series	
					5A 250V	against an over.	200V series	
3		Temperature fuse 1	Mold	Temperature	132°C 250V	Assures safety in overheating.		
		(Fusing section)		fuse	10A			
4		Temperature fuse 2	Mold	Temperature	187℃ 125V	Assures safety in overheating.		
		(Fusing section)		fuse	1.5A			

(7) Lamp



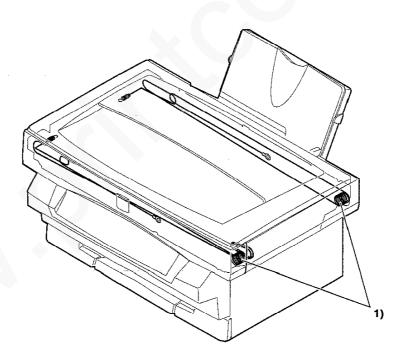
No.			Parts	3		Model	Mada
110.	Code	Name	Туре	Function/operation	Specification	Model	Note
1	SL	Scanner lamp	Cool cathode ray tube (Xenon lamp)	Light source for scanning (reading)		Common	
2	HL	Heater lamp	Halogen lamp	Heating for the heat roller.	100V 500W	10V series	
					120V 500W	120V series	
					230V 500W	200V series	

(8) Interface (connector)

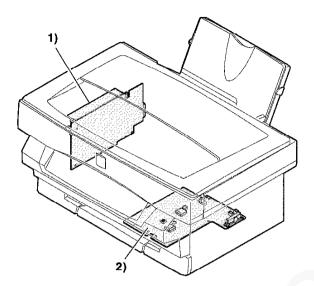


No.		Parts		Model	Note	
NO.	Name	Туре	Connector type (Type/pin no.)	Model	Note	
1	Printer interface	IEE1284 parallel interface	Anfenor 36 pin	XE-80/82/84	Allows connection with one (two)	
					personal computer(s). Printer models only.	

(9) Belt, wire

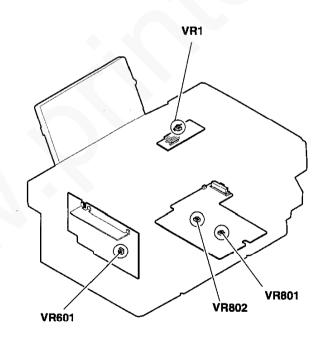


Γ	No.		Parts	Note
INC	NO.	Name	Function/operation	NOIG
ſ	1	Scanner drive wire	Transmits the scanner motor drive power to the scanner unit.	



No.		Parts	Note	
	Name	Specification *	Function/operation	Note
1	Power unit	DC +24V 2.0A/DC +5V 1.1A/DC +12V 0.13A/DC +3.3V 0.25A	Outputs the DC power. Drives the heater lamp. Outputs the power detection signal.	The voltage specification differs depending on the destination.
2	High voltage power unit	Main charger voltage, transfer charger voltage, developing bias voltage	The high voltage power output. (Supplies power to the image process section.)	

(11) Adjustment volume



No.			Nete	
140.	Code	Name	Function/operation	Note
1	VR1	Scanner lamp light quantity adjustment volume	Adjusts the scanner lamp light quantity.	
2	VR601	Output voltage adjustment volume	Adjust the DC output voltage (+24V).	T - 100
3	VR801	Main charger voltage adjustment volume	Adjusts the main charger voltage.	
4	VR802	Developing bias voltage adjustment volume	Adjusts the developing bias voltage.	

[6] MACHINE OPERATION

(1) Operation mode

This machine has the following operation modes.

Mode	Content			
Copy mode	During the coy mode, print data is received but not accepted. After completion of copying, print is automatically performed.			
Print mode Laster image data from the host is printed.				
Power save mode There are the pre-heat mode and the power shut down mode. In the pre-heat mode, full lowered. In the power shut down mode, all the sections excluding the control circuit are				
Test command (Simulation) This mode is used for servicing (various setting, adjustments, and checking of the operations				
User program mode Used to set the operating specifications according to user's need.				

(2) Machine status and display

There are following machine status, and the operation and display are made for each status. Machine status

Machine s	J.C. CO										
Machinec	ondition		READY LAMP	ON LINE LAMP	3 GREEN 7 SEGMENT LED	INPUT TRAY LAMP	JAM LAMP	TONER CERTRIDGE REPLACE- MENT LAMP	DRUM CERTRIDGE REPLACE- MENT LAMP	Copy lamp	NOTE
Warm up		Warming up and initializing are performed in the fusing section, the image process section, the scanner section, and the electrical circuits.	BLINK		-	_	_	-		ON	
READY	ONLINE	Print image is received and printing is allowed.	ON	ON	-	ON	OFF	OFF	OFF	ON	Manually switchable between ON LINE/OFF LINE. Automatically switched from OFF LINE to ON LINE.
	OFFLINE	Only copying is allowed. (Printing is inhibited.)	ON	OFF	-	ON	OFF	OFF	OFF	ON	
BUSY		Copying and printing	OFF	OFF/ BLINK	_	ON	_		_	ON	Interruption inhibited.
	Pre-heat mode	The fusing temperature is lowered to reduce power consumption.	BLINK		<u>—</u>	_	_	_	<u></u>	OFF	When any key is pressed, warming up is started.
Power save	Power shut down mode	Conduction to the loads other than electrical circuits is inhibited, excluding the heater lamp and the copy lamp.	BLINK	_	OFF	OFF	OFF	OFF	OFF	OFF	All lamps except for READY indicator are turned OFF. When any key is pressed, warming up is started.
Machine trouble		The machine operation cannot continue operation, and coping or printing is forcibly stopped. (Conduction is stopped excluding the display section.) The error code is displayed and the error lamp is lighted.	OFF	OFF	The error code is displayed.	_	-	-	_	OFF	Requires repair work by a serviceman.
	Paper jam		OFF	OFF	E2/E3	ON	BLINK		_	OFF	
	Mis-feed	Paper is not fed in the paper feed section.	OFF	OFF	E 1	BLINK	BLINK	_	_	_	
		Photoconductor cartridge life (18K) over	OFF	OFF	32	_	_	_	BLINK	OFF	When the life is reached during copying or printing, the job is completed then the machine is stopped.
Consumatempty	ole part	Photoconductor cartridge life (17K) near	ON	ON				_	ON	_	
''F'y		Toner empty	OFF	OFF			_	ON	_	_	The machine operation is not stopped.
		Paper empty	OFF	OFF	P- BLINKING	BLINK	_	_			The input tray indicator blinks, 3 green 7b segment LED displays "P."

(3) Relationship between the power save mode and the display and machine operations

The power save mode is of two steps: the pre-heat mode and the power shut down mode. When the time set by user program 2 or 3 is passed from the non-operation state, the machine enters the pre-heat mode and the power shut down mode.

Machine condition Ready (Machine idle)		READY LAMP	OTHER LEDS AND LAMPS	FUSER TEMPERATURE CONTROL	FAN	Copy lamp	Other load
		ON Current selected state		160°C	ON	ON	Normal operation
Power save	Pre-heat mode	BLINK	Current selected state	80°C	ON	OFF	OFF
	Power shut down mode	BLINK	OFF	OFF	OFF	OFF	OFF

(4) Consumable parts life and operation

When consumable parts life is approached, a warning display is made. When the photoconductor drum life is reached, the machine is forcibly stopped.

Machine cond	Machine condition		READY SEGMENT TRA		TONER CERTRIDGE REPLACEMENT LAMP	DRUM CERTRIDGE REPLACEMENT LAMP	NOTE	
Consumable part empty	Photoconductor cartridge life (18K) over	OFF	52	_	_	BLINK	When the life is reached during copying or printing, the job is completed and then the machine is stopped.	
	Photoconductor cartridge life (17K) near	ON	_	_	_	ON		
	Toner empty	ON	_	_	ON	_	The machine operation is not stopped. (However, the print density is lowered.)	
	Paper empty	OFF	P-BLINKING	BLINK	_	_	The input tray indicator blinks, 3 GREEN 7 SEGMENT LED show "P."	

(5) ON LINE/OFF LINE mode operation and switch

The ON LINE/OFF LINE mode switch is performed forcibly by the on-line key or automatically.

The machine is normally in the ON LINE mode, allowing to copy and to print

* Forcible switch by the ON LINE key

When the mode is forcibly switched to the OFF LINE mode, printing of the image which is being printed is completed and the operation is stopped. Reception of print image data from the host is stopped.

By this operation, printing is forcibly stopped and the mode is shifted to the copy mode.

In the OFF LINE mode, printing is not performed. To perform printing, switch to the ON LINE mode with the ON LINE key.

* Automatic switch

When non-operation time reaches the specified time set by user program 14, the machine is automatically shifted from the OFF LIEN mode to the ON LINE mode.

User program 14 allows to set the time for switching from OFF LIEN mode to the ON LINE mode.

(6) Paper width detection and machine operation

This machine is designed to detect only the following two sizes:

Max. paper size and Min. paper size shown in the table below.

Imaging (main scanning direction void area and image length) is performed according to the paper size the machine detects, Therefore, if the SIM 26-6 set value is not matched with the paper specification, the image position on the paper is shifted to cause a trouble.

Destina	tion code	Detectable paper size			
Set value	Destination	Paper type	Paper width detector ON (Max. paper size)	Paper width detector OFF (Min. paper size)	
0		Inch series	11 × 8.5	8.5 × 5.5	
1	EX Japan	AB series	A4	A5	
2	Japan	AB series	A 4	B5	

(7) Others

a. Void area function

A void area is provided in the main scanning direction and in the sub scanning direction to prevent against dirt on the transfer roller by toner.

b. Special function of the key

[7] ADJUSTMENTS, SETTING

1. List

	Contr	ent		Preliminary work	After- work
SET M1	Specification setting	DET 1	D	JOB No	JOB No
9EI MII	Specification setting	SET 1	Power save mode setting		
		SET 3	CE mark standard conformity setting		
SET M2	Counter setting	SET 1	Photoconductor counter reset		
ADJ M1	Copy (print) density	ADJ 1	Auto mode	ADJ M7	
	adjustment	ADJ 2	Text mode	ADJ M10	
		ADJ 3	Photo mode	CHI M1	
		ADJ 4	Toner save mode		
ADJ M2	Scanner drive wire tension adjustment				ADJ M3
ADJ M3	Copy distortion adjustment	ADJ 1	Scanner unit parallelism adjustment (Mechanical adjustment)	ADJ M2	ADJ M3/ ADJ 2
		ADJ 2	Copy sub scanning direction distortion adjustment	ADJ M3/ ADJ 1	ADJ M3/ ADJ 3
		ADJ 3	Copy main scanning direction distortion adjustment	ADJ M3/ ADJ 2	ADJ M4
ADJ M4	Copy magnification ratio adjustment	ADJ 1	Main scanning direction magnification ratio (focus, resolution) adjustment	ADJ M3/ ADJ 3	ADJ M4/ ADJ 2
		ADJ 2	Sub scanning direction copy magnification ration adjustment	ADJ M4/ ADJ 1	
ADJ M5	Copy image position adjustment (Main scanning direction)				ADJ M6
ADJ M6	Copy image area (image loss, void area) adjustment	ADJ 1	Image loss, void area (lead edge tail edge) adjustment		
		ADJ 2	Void area (left/right) adjustment		
ADJ M7	Image process (high voltage)	ADJ 1	Charging voltage adjustment		ADJ M1
	power adjustment	ADJ 2	Developing bias voltage adjustment/check		ADJ M1
CHI M1	Transfer charger (voltage) check				
ADJ M8	Fusing temperature adjustment	ADJ 1	Fusing temperature adjustment within 20 sheets of		
		ADJ 2	continuous print Fusing temperature adjustment after 20 sheets of continuous print		
ADJ M9	Power voltage adjustment				
ADJ M10	Copy lamp light quantity adjustment				ADJ M1

Shaded section (): Unnecessary

2. Details

SET M1 Specifications setting

Content				
SET M1	Specification setting	SET 1	Destination setting	
1		SET 2	Power save mode setting	
		SET 3	CE mark standard conformity setting	

SET 1 Destination (paper specifications) setting

* Program used

Test command (Simulation)	MODE	Normal
	MAIN CODE	26
	SUB CODE	6

* Enforcement conditions

Enforcement	JOB No	Content
time	S 009/Ua 002	When replacing MCU PWB
		In case of U2 trouble
		When installing
		When the paper specification is changed.
Cycle		_
Conditions		_

* Job content

- Enter the simulation 26-6 mode. (The currently set code (value) of the destination is displayed.)
- Enter the desired code (value) of the destination and paper specification, and press the start button.

Destination		Paper			
code set value	Destination	Paper type	Max. size	Min. size	
0		Inch series	11 × 8.5	8.5 × 5.5	
1	EX Japan	AB series	A 4	A 5	
2	Japan	AB series	A 4	B5	

When the adjustment value is changed, the paper size specification, the fixed magnification ratios, and enlargement copy magnification ratios are changed.

* Troubles caused by improper work

 If the set value does not correspond to the actual paper size (small size), the transfer roller is dirtied with toner and as a result the print paper edge is dirtied with toner.

SET 2 Power save mode setting

* Adjustment value

Default value	_

* Program used

Test command (Simulation)	MODE	Normal
	MAIN CODE	26
	SUB CODE	26

* Enforcement time

Enforcement	JOB No	Content
time	S 009/Ua 002	When replacing MCU PWB
		In case of U2 trouble
		When installing
Cycle		-
Conditions		. —

* Job content

- Enter the simulation 26-26 mode. (The currently set code (value) of power save operation is displayed.)
- Enter the desired code of power save operation, and press the start button.

Set code	Power save operation
0	YES
1	NO

SET 3 CE mark standard conformity setting (Flicker)

* Adjustment value

Default	_

* Program used

Test command (Simulation)	MODE	Normal
	MAIN CODE	26
	SUB CODE	30

* Enforcement conditions (time)

Enforcement	JOB No	Content
time	S 009/Ua 002	When replacing MCU PWB.
		In case of U2 trouble
		When installing
		When the fluorescent lamp flickers during operation of the copier.
Cycle		_
Condition		_

* Job content

- Enter the simulation 26-30 mode. (The currently set code of the CE mark conformity operation (protecting against flicker) is displayed.
- Enter the desired code (value) of the CE mark conformity operation (protecting against flicker), and press the start button.

Set code	CE mark conformity operation (Protecting against flicker)	
0	YES	
1	NO	

If the fluorescent lamp flickers when the power of the copier is turned on, set this adjustment value to 1 to reduce or eliminate this phenomenon.

SET M2 Counter setting

SET 1 Photoconductor counter reset

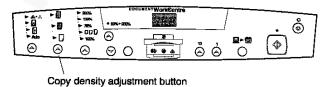
* Enforcement condition (time)

Enforcement	JOB No	Content
time		When replacing photoconductor cartridge
	S 009/Ua 002	When replacing MCU PWB
		In case of U2 trouble
Cycle		18 K
Condition		<u> </u>

* Job content

- 1) Turn on the power.
- 2) Open the operation section. (The cabinet switch is turned off.)
- While pressing the copy exposure adjustment button, close the operation section. (The cabinet switch is turned on.)

With the above operation, the photoconductor counter is reset.



ADJ M1 Copy density adjustment

	Co	ntent		Preliminary work JOB No	After- work JOB No
ADJ M1	Copy (print) density	ADJ 1	Auto mode	ADJM1/M7/ M10	
	adjustment	ADJ 2	Text mode	ADJM1/M7/ M10	
		ADJ 3	Photo mode	ADJM1/M7/ M10	
		ADJ 4	Toner save mode	ADJM1/M7/ M10	

ADJ 1 Auto copy mode copy density adjustment

ADJ 2 Text copy mode copy density adjustment

ADJ 3 Photo copy mode copy density adjustment

ADJ 4 Toner save copy mode copy density adjustment

* Adjustment value (Common to all the adjustment items)

(Test command (Set value))

Range (MIN)	0
Range (MAX)	99
Standard value	50
Default	50

(Copy density level)

Adjustment mode	Mode display lamp	Density adjustment level	SHARP gray chart (UKOG-0062FCZZ) adjustment level
Auto copy mode	Auto copy mode lamp		"3" of the gray scale is copied.
Test copy mode	Text copy mode lamp	Center (3)	"3" of the gray scale is copied.
Photo copy mode	Photo copy mode lamp	Center (3)	"2" of the gray scale is copied.
Tone save copy mode	Text copy mode lamp	Center (3)	"3" of the gray scale is copied.
	Photo copy mode lamp		

* Program used

Test command (Simulation)	MODE	Normal
	MAIN CODE	46
	SUB CODE	1

* Execution condition (time)

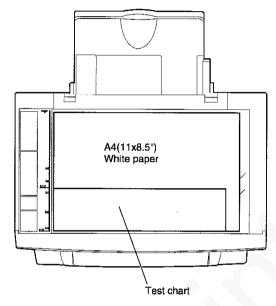
Enforcement	JOB No	Content
time	S 004	When any part of the scanner (reading) section is disassembled, replaced, or cleaned.
	S 009/Ua 002	When replacing MCU PWB
		In case of U2 trouble
	S 009/Ua 004	When replacing the high voltage power/motor drive PWB
	ADJ M7	When adjusting the high voltage power voltage
		When servicing
Cycle		-
Conditions		Normal copy exposure is not obtained.

* Necessary condition

- 1) The scanner (reading) section must be free from dust.
- 2) The image process section must be normal.
 - \bigstar The high voltage power voltage must be normal.
 - ★ The photoconductor cartridge, the developer cartridge are normal (free from dirt and damage).
 - \bigstar The transfer roller must be free from dirt and damage.
- 3) The fusing section must be normal (free from dirt).
- 4) The paper transport section must be normal.
- 5) The scan (writing) section must be free from dirt.

* Work content

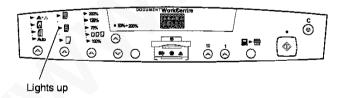
1) Set the test chart with three sheets of A4 (11 \times 8.5) paper on the document table as shown below and close the document cover.



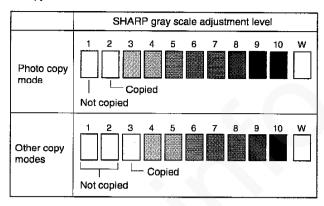
- 2) Use the user program 6 to set the copy density level to center (4).
- 3) Enter the test command (simulation) 46-1 mode.
- Select the copy mode to be adjusted with the copy picture quality mode select key.

(The currently set copy density adjustment level is displayed on the copy quantity display.)

Set the copy mode density level to the center. (Excluding the auto copy mode.)



Change and adjust the set value so that the following copy density copy is made.



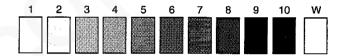
To change the copy density, change the adjustment value and press the start button.

(The adjustment value is stored and a copy is made)

To decrease the copy density, decrease the adjustment value. To increase the copy density, increase the adjustment value. When the exposure level of the center density level is adjusted, the copy density in the other density level is automatically calculated and adjusted.

The adjustment value can be set in the range of 0 ~ 99.

Perform procedures 4) - 6) for each copy mode.



(Test chart comparison table)

UKOG-0162FCZZ DENSITY No	1	2	3	4	5	6	7	8	9	10	w
UKOG-0089CSZZ DENSITY No	0.1		0.2		0.3				0.5	1.9	0
KODAK GRAY SCALE		1		2		3		4		19	Α

* Preliminary work

JOB No	Content
S 004	Scanner (reading) section cleaning
S 006	Image process section cleaning
S 007	Fusing section cleaning

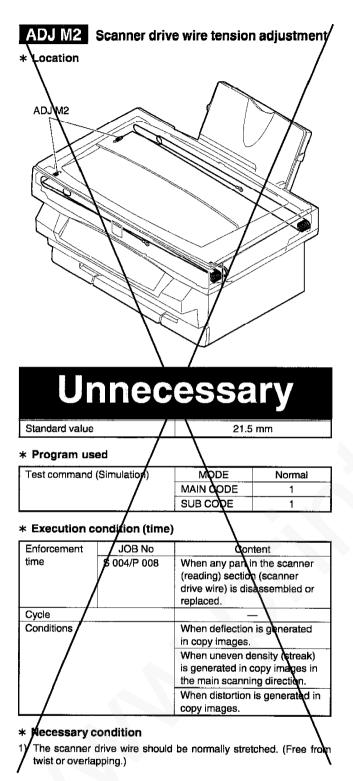
* Necessary tools

One of the following test charts is required.

Name	Gray scale chart
Parts code/Price rank	UKOG-0162FCZZ

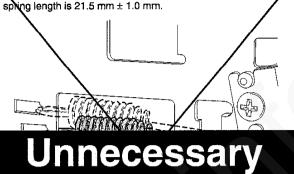
Name	SHARP original test chart
Parts code/Price rank	UKOG-0089FCZZ

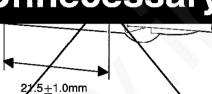
Name	KODAK gray scale chart
Parts code/Price rank	Commercially available



Work content

Shange the spring hook position so that the scanner drive wire spring length is 21.5 mm ± 1.0 mm.





- * Troubles caused by improper work
- 1) Deflection in copy images
- Uneven density (streak) in copy images in the main scanning rection
- Distortion in copy images

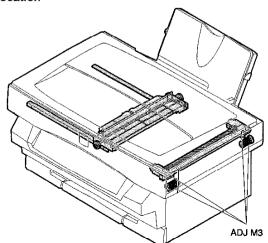
ADJ M3 Copy image distortion adjustment

	Content				After- work
				JOB No	JOB No
ADJ M3	Copy distortion adjustment	ADJ 1	Scanner unit paralleiism adjustment (Mechanical	ADJ M2	ADJ M3/ ADJ 2
ľ			adjustment)		
		ADJ 2	Copy sub scanning direction distortion adjustment	ADJ M3/ ADJ 1	ADJ M3/ ADJ 3
		ADJ 3	Copy main scanning direction distortion adjustment	ADJ M3/ ADJ 2	ADJ M4

Shaded section (): Unnecessary

ADJ 1 Scanner unit parallelism adjustment

* Location



* Execution condition (time)

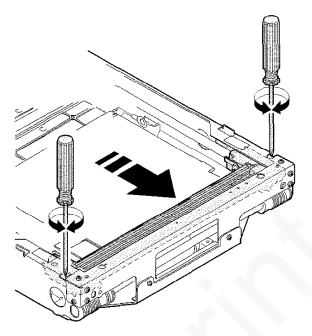
Enforcement	JOB No	Content
time	S 004	When any part in the scanner (reading) section is disassembled or replaced.
Cycle		
Condition		When the copy image distortion is outside the allowable range.

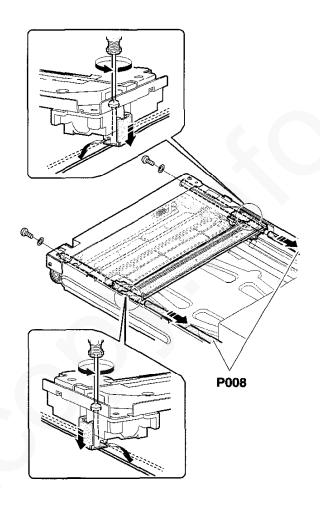
* Necessary condition

1) The scanner drive wire tension must be normal.

* Work content

 Loosen the fixing screw of the scanner unit A and the drive wire, and release the scanner unit A from the drive wire.

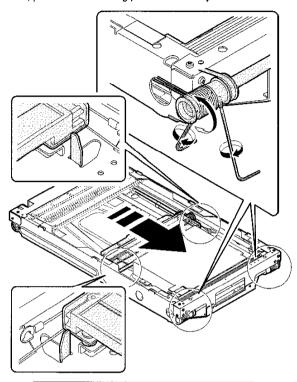


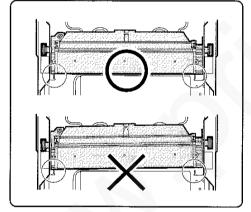


Manually turn the scanner drive gear to bring the scanner unit B into contact with the stopper,

At that time, if the scanner unit B makes contact with both the stoppers in the front and the rear frames at the same time, the parallelism of the scanner unit B is proper.

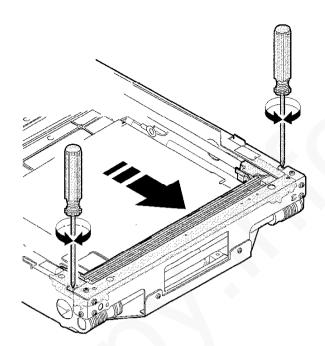
If not, perform the following procedures to adjust.

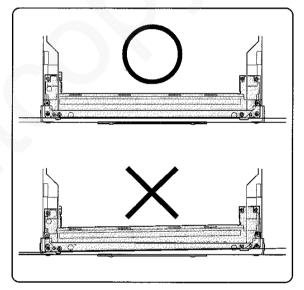




Do not move the scanner unit manually.

- Loosen the fixing screw of the scanner unit drive pulley which is not in contact with the stopper of the scanner unit B.
- 4) Without moving the scanner unit drive shift, manually turn the scanner unit drive pulley so that the scanner unit B makes contact with both the stoppers at the same time. (Change the relative positions of the scanner unit drive pulley and the drive shaft.)
- Fix the scanner unit drive pulley fixing screw which was loosened in procedure 3).
- 6) Execute procedure 2).
 - Repeat procedures 3) \sim 6) until the parallelism of the scanner unit B is proper.
- 7) With the scanner unit B in contact with both the stoppers in the rear and the front frames, slide the scanner unit A until it makes contact with the right edge of the frame, and fix the scanner unit A and the drive wire.





- * Troubles caused by improper work
- 1) Scanner motor trouble

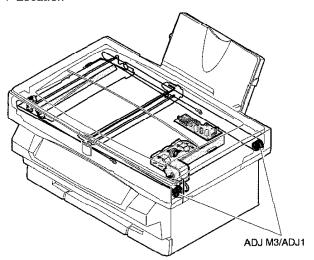


* After-work

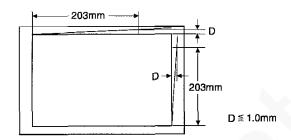
JOB No.	Content	
ADJ M3/ADJ 2	Sub scanning direction copy distortion adjustment	

ADJ 2 Sub scanning direction distortion adjustment

* Location



* Adjustment value



* Execution condition (time)

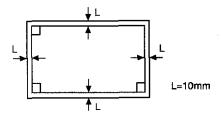
Enforcement	JOB No	Content
time	S 004	When any part in the scanner (reading) section is disassembled or replaced.
	ADJ M3/ ADJ 1	When the scanner unit parallelism adjustment is performed.
Cycle		
Condition		When the copy image distortion is outside the specified range.

* Necessary condition

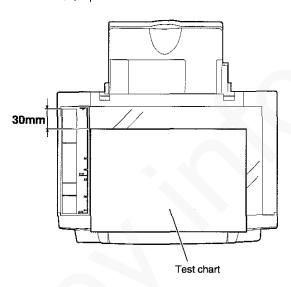
- The scanner unit parallelism adjustment (mechanical adjustment) is completed.
- 2) The scanner drive wire tension is proper.

* Work content

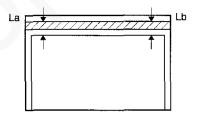
 Make a test chart on A4 (11" x 8.5") paper as shown below. (Draw a rectangular with four right angles.)



 Set the test chart which was made in procedure 1) on the document table, and make a copy on A4 (11" × 8.5") paper with the document cover open.

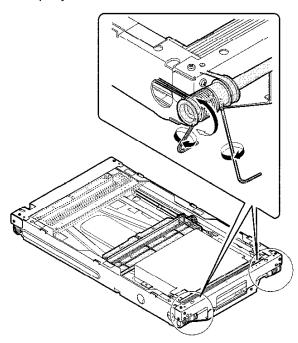


Check the sub scanning direction distortion.
 If La = Lb, there is no distortion.



If there is any distortion in the sub scanning direction, perform the following procedures.

 Loosen either one of the two fixing screws of the scanner unit drive pulley.



- 5) Without moving the scanner unit drive shaft, manually turn the scanner unit drive pulley to adjust the parallelism of the scanner unit A. (Change the relative positions of the scanner unit drive pulley and the drive shaft.)
- 6) Tighten the scanner unit drive pulley fixing screw.
 Repeat procedures 2) ~ 6) until the condition of procedure 3) is satisfied.

* Trouble caused by improper work

* Preliminary work

JOB No.	Content
ADJ M3/ADJ 1	Scanner unit parallelism adjustment
	(mechanical adjustment)

* After-work

JOB No.	Content	
ADJ M3/ADJ 3	Main scanning direction copy distortion	
	adjustment	

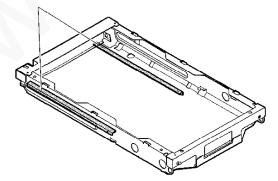
* Necessary tool

Name	Scale
Parts code/Price rank	

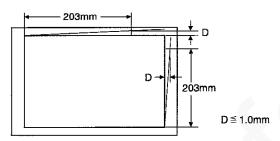
ADJ 3 Copy main scanning direction distortion adjustment

* Location

ADJM3/ADJ3



* Adjustment value



* Execution condition (time)

Enforcement	JOB No	Content
time	S 004	When any part in the scanner (reading) section is disassembled or replaced.
	ADJ M3/ ADJ 2	When the sub scanning direction distortion is performed.
Cycle		_
Condition		When the copy image distortion is not within the specified range.

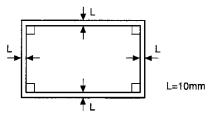
* Necessary condition

- The scanner unit parallelism adjustment (mechanical adjustment) is completed.
- 2) The scanner drive wire tension is proper.
- The sub scanning direction copy distortion is within the specified range.

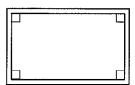
* Work content

tion.

 Make a test chart on A4 (11" x 8.5") paper as shown below. (Draw a rectangular with four right angles.)

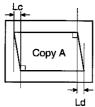


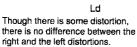
- 2) Set the test chart which was made in procedure 1) on the document table, and make a copy on A4 (11" \times 8.5") paper with the document cover open.
- Check the main scanning direction distortion.
 If the four angles of the copy are right angles, there is no distor-

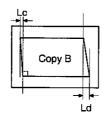


If there is any distortion in the sub scanning direction, perform the following procedures.

 Check the distortion difference (distortion balance) between the right and the left sides.







There is some difference between the right and the left distortions

Lc = Ld

 $1c \pm 1d$

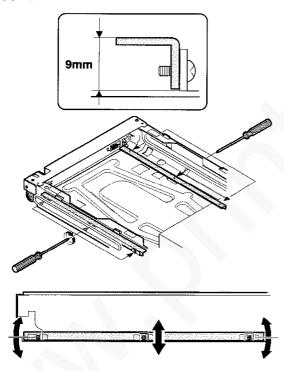
If Lc = Ld, the image distortions of the right and the left sides are equal to each other.

If the above condition is satisfied go to procedure 9).

If the above condition is not satisfied, perform the following procedures.

5) Check the height of the scanner rail on the rear frame side.

If the scanner rail heights (on the right and the left sides) from the scanner chassis level are not 9.0mm, adjust so that they are 9.0mm.



- 6) Set the test chart made in procedure 1) on the document table, and make a copy on A4 (11" x 8.5") paper.
- Check the distortion difference (distortion balance) between the right and the left sides.

If Lc = Ld, the image distortions of the right and the left sides are equal to each other.

If the above condition is satisfied go to procedure 9).

If the above condition is not satisfied, perform the following procedures

8) Change the height balance of the scanner rail on the front frame

Repeat procedures 6) \sim 8) until the image distortion difference (distortion balance) becomes zero.

- If the image distortion difference becomes zero, change the overall height of the front frame side scanner rail.
- 10) Set the test chart made in procedure 1) on the document table and make a copy on A4 (11" × 8.5") paper. Check that the main scanning direction distortion is within the specified range.

Repeat procedures 9) \sim 10) until the main scanning direction distortion is within the specified range.

* Preliminary work

JOB No.	Content	-
ADJ M3/ADJ 2	Copy sub scanning direction distortion	Ī

* After-work

JOB No.	Content
ADJ M4	Copy magnification ratio adjustment

* Necessary tool

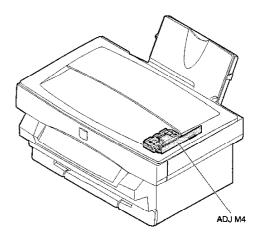
Name	Scale
Parts code/Price rank	_

ADJ M4 Copy magnification ratio adjustment

Content			Preliminary work	After- work	
				JOB No	JOB No
ADJ M4	Copy magnification ratio adjustment	ADJ 1	Main scanning direction magnification ratio (focus, resolution) adjustment	ADJ M3/ ADJ 3	ADJ M4/ ADJ 2
		ADJ 2	Sub scanning direction copy magnification ration adjustment	ADJ M4/ ADJ 1	

ADJ 1 Copy focus (resolution), main scanning direction copy magnification ratio adjustment

* Location



* Adjustment value

(Test command (set value))

Range (MIN)	. 0
Range (MAX)	99
Standard value	50
Default	50

(Copy resolution, main scanning direction copy magnification ratio)

Copy image position	Copy resolution	
Center	5.0 line/mm	
Comer	4.5 line/mm	

Copy magnification ratio display value	Actual copy magnification ratio	
100%	Within \pm 1.0% of the displayed copy magnification ratio	

* Program used

Test command (Simulation)	MODE	Normal
	MAIN CODE	48
	SUB CODE	1

* Execution condition (time)

Enforcement	JOB No	Content
time	S 004	When any part in the scanner (reading) section is disassembled or replaced.
	S 009/Ua 002	When replacing the MCU PWB
		In case of U2 trouble
Cycle		_
Condition		When the main scanning direction copy magnification ratio and resolution are not in the specified range,

* Necessary condition

- 1) The copy image distortion is within the specified range.
- 2) The copy image is free from deflection.
- 3) The copy image density is within the specified range.

* Work content

- 1) Enter the simulation 48-1 mode.
- Select the main scanning direction (manual) adjustment mode with the copy picture quality mode select key.

(The currently set copy magnification ratio adjustment value is displayed on the copy quantity display.)

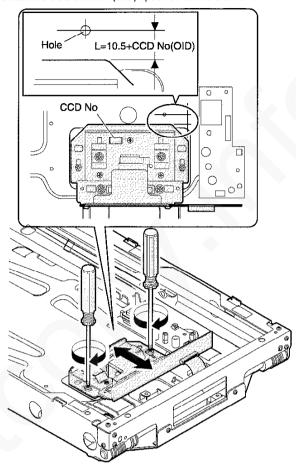
Adjustmer	nt mode	Adjustment mode (Lighting)	Note
Main scanning direction	Auto	Auto copy mode lamp	The adjustment is made automatically by the software.
	Manual	Test copy mode lamp	The adjustment is made by the software.
Sub scanning direction	Manual	Photo copy mode lamp	The adjustment is made by changing the scanning speed,

3) Set the adjustment value to 50 and press the start button.

(The adjustment value is stored and a copy is made at the copy magnification ratio corresponding to the adjustment value.)

The adjustment value can be set in the range of 0 - 99.

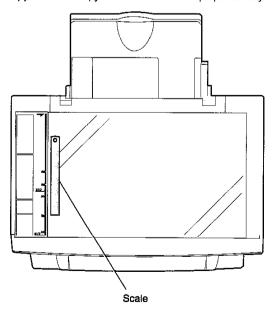
- 4) Turn off the power.
- 5) Check the CCD unit No. (OID) specified on the CCD unit.



- 6) Loosen the CCD unit fixing screw.
- 7) Set the dimension (L) from the CCD edge to the center of the hole in the scanner (reading) unit to the value calculated from the following formula, and fix it.

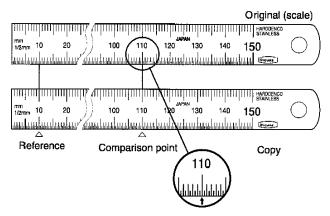
 $L \simeq 10.5 + CCD$ unit No. (OID)

8) Place the scale on the document table as shown below, and make a copy in the text copy mode at 100% in the proper density.



 Measure the length of the copied scale image and calculate the main scanning direction magnification ratio.

(When a 100mm scale is used as the original)



Note: To minimize the reading errer, measure at scale of 110 with

Main scanning direction magnification ratio = Copy image dimension/Original dimension \times 100%

10) Check if the copy magnification ratio is within the specified range $(100 \pm 1\%)$.

If the copy magnification ratio is within the specified range, the adjustment is completed.

If not, perform the following procedures.

(When the copy magnification ratio is $100 \pm 1.0\%$ with SIM 48-1 main scanning direction (manual) adjustment mode copy magnification ratio is 50)

11-A) Change the SIM 48-1 main scanning direction (manual) adjustment mode copy magnification ratio, and repeat procedures 8) \sim 11) until the copy magnification ratio is within the specified range (100 \pm 1.0%). At that time, there is no need to change the CCD unit fixing position.

When the adjustment value is increased, the main scanning direction copy magnification ratio is increased.

When the adjustment value is changed by 1, the copy magnification ratio is changed by 0.1%.

(When the copy magnification ratio is over $100 \pm 0.5\%$ with SIM 48-1 main scanning direction (manual) adjustment mode copy magnification ratio is 50)

11-B) Change the CCD unit fixing position and repeat procedures 7) ~ 11-A) or ~ 11-B).

* Troubles caused by improper work

Never touch the other screws than the CCD unit fixing screw.

If the other screws are touched, insufficient resolution, image distortion, etc. may re resulted, which cannot be adjusted.

* Preliminary work

JOB No	Content
ADJ M3/ADJ3	Copy sub scanning direction distortion adjustment

* After-work

JOB No	Content
ADJ M4/ADJ 2	Sub scanning direction copy magnification ratio

* Necessary tools

Name	Scale
Parts code/Price rank	· · · —

Name	Test chart (resolution check chart)
Parts code/Price rank	UKOG-0089CSZZ

* Note

With the SIM 48-1 adjustment value set to 50, change the CCD unit fixing position. If the copy magnification ratio is adjusted within the specified range ($100 \pm 1.0\%$), focus is adjusted as a result. (The specified resolution is obtained.)

If the copy magnification ratio is within the specified range (100 \pm 1.0%) with the SIM 48-1 adjustment value set to 50, but if the specified resolution is not obtained, perform the following procedures.

- 1) Set the SIM 48-1 adjustment value to 50.
- Change the CCD unit fixing position so that the specified resolution is obtained.

At that time, the main scanning direction copy magnification ratio may be outside the specified range ($100 \pm 1.0\%$).

3) Change the adjustment value of SIM 48-1 to adjust so that the main scanning direction copy magnification ration is in the specified range ($100 \pm 1.0\%$).

ADJ 2 Sub scanning direction copy magnification ratio adjustment

* Adjustment value

(Test command (et value))

Range (MIN)	0
Range (MAX)	99
Standard value	50
Default	50

(Sub scanning direction copy magnification ratio)

Copy magnification ratio display value	Actual copy magnification ratio
100%	Within ± 1.0% of the displayed copy magnification ratio

* Program used

Test command (Simulation)	MODE	Normal
	MAIN CODE	48
	SUB CODE	1

* Execution condition (time)

Enforcement	JOB No	Content
time	S 004	When any part in the scanner
		(reading) section is
		disassembled or replaced.
	ADJ M4/	When the main scanning
	ADJ 1	direction copy magnification
		ratio is adjusted.
	S 009/Ua 002	When the MCU PWB is
		replaced
1		In case of U2 trouble
Cycle		
Condition		When the sub scanning
		direction copy magnification
		ratio is not within the specified
		range.

* Necessary condition

- 1) The copy image distortion is within the specified range.
- 2) The copy image is fee from deflection.
- 3) The copy image density is within the specified range.
- The main scanning direction coy magnification ratio is within the specified range.

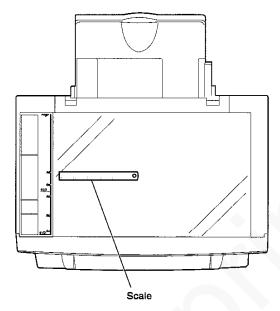
* Work content

- 1) Enter the simulation 48-1 mode.
- Select the sub scanning direction adjustment mode with the copy picture quality mode select key.

(The currently set copy magnification ratio adjustment value is displayed on the copy quantity display.)

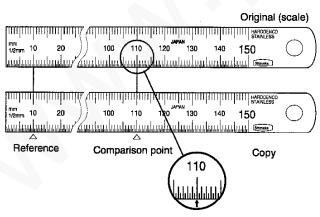
Adjustmen	t mode	Adjustment mode (Lighting)	Note
Main scanning direction	Auto	Auto copy mode lamp	The adjustment is made automatically by the software.
	Manual	Test copy mode lamp	The adjustment is made by the software.
Sub scanning direction	Manual	Photo copy mode lamp	The adjustment is made by changing the scanning speed.

 Place the scale on the document table as shown below, and make a copy in the text copy mode (100%) (Display) at a proper density.



 Measure the copied scale length and calculate the sub scanning direction copy magnification ratio.

(When a 100mm scale is used as the original)



Note: To minimize the reading errer, measure at scale of 110 with

Main scanning direction copy magnification ratio = Copy image dimension/Original dimension \times 100%

5) Check that the copy magnification ratio is within the specified range (100 \pm 1.0%).

If the copy magnification ratio is within the specified range (100 \pm 1.0%), the adjustment is completed.

If not, perform the following procedures.

 Change the adjustment value of SIM 48-1 sub scanning direction copy magnification ratio.

When the adjustment value is increased, the main scanning direction copy magnification ratio is increased.

Repeat procedures 3) \sim 6) until the copy magnification ratio is within the specified range (100 \pm 1.0%).

* Preliminary work

JOB No	Content
ADJ M4/ADJ 1	Main scanning direction copy
	magnification ratio adjustment

* Necessary tools

Name	Scale
Parts code/Price rank	_

* Note

 If this adjustment is performed when the main scanning direction copy magnification ratio is not in the specified range (100% ±0.1%) the proper copy magnification ratio cannot be obtained.

ADJ M5 Copy image position adjustment (Main scanning direction)

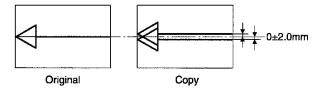
* Adjustment value

(Test command (Simulation) (Set value))

Range (MIN)	0	
Range (MAX)	99	
Standard value	50	
Default	50	

(Copy image position (Main scanning direction))

When the copy image position is compared with the original image position, the shift must be within 0 ± 2.0 mm.



* Program used

Test command (Simulation)	MODE	Normal
	MAIN CODE	50
	SUB CODE	10

* Execution condition (time)

Enforcement	JOB No	Content
time	S 004	When any part of the scanner section (reading) is disassembled and replaced.
	S 009/Ua 002	When replacing MCU PWB
		In case of U2 trouble
Cycle		_
Condition		When the copy image position (main scanning direction) is not in the specified range.

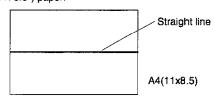
* Necessary conditions

- 1) The copy image distortion is within the specified range.
- The main scanning direction copy magnification ratio is within the specified range.
- 3) When the paper guide position is fit with the paper width.

* Work content

1) Make a test sheet.

Draw a line in the longitudinal direction (paper transport direction) on A4 (11×8.5 ") paper.



- Fit the check sheet with the original guide mark (reference position).
- 3) Enter the simulation 50-10 mode.

And select the adjustment mode copy image position adjustment. (Main scanning direction) with the copy picture quality mode select key (Photo copy mode lamp is ON).

Adjustment mode	Adjustment mode display (Lighting)	Note
Main scanning direction image position	Photo copy mode lamp	
Main scanning direction image position (SPF mode)	Auto/Photo/Text copy mode lamp	
Left void area	Auto copy mode lamp	
Right void area	Text copy mode lamp	

(The currently set copy image position adjustment value in the main scanning direction (back-forth direction) is displayed on the copy quantity display.

- 4) Make a copy on A4 (11 × 8.5") paper.
- 5) Fit the original (check sheet) tip with the copy paper tip to check that the image position shift is within 0 ± 2.0 mm.

If not, change the adjustment value of SIM 50-10 and repeat procedures 4) and 5) until the shift is within the specified range.

The adjustment value can be set in the range of 0 ~ 99.

When the adjustment value is changed by 1, the copy image position is shifted by 0.1mm in the main scanning direction.

* After work

JOB No	Content
ADJ M6	Copy image area (image loss, void area, adjustment)

* Necessary tools

١	Name	Check sheet (Self-made)
	Parts code/Price rank	

* Note

If the copy image position in the main scanning direction cannot be adjusted within the specified range with this adjustment, check the paper feed operation.

ADJ M6 Copy image area (Image loss, void area) adjustment

ADJ 1 Image loss, void area (lead edge, tail edge) adjustment

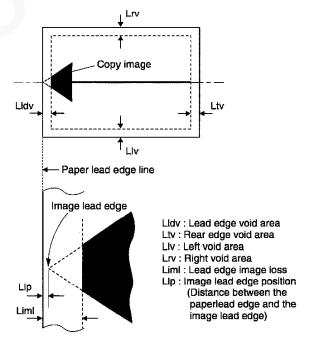
* Adjustment value

(Simulation djustment value)

	Image lead edge position	Image scanning start position	Lead edge void area	Tail edge void area
Range (MIN)	0	0	0	0
Range (MAX)	99	99	99	99
Standard value	50	50	50	50
Default	50	50	50	50

(Image loss, void area adjustment value)

	Image lead edge position	Lead edge image loss	Lead edge void area	Tail edge void area
Range (MIN)	_	_	1.0mm	1.0mm
Range (MAX)	_	_	5.0mm	5.0mm
Standard value	0mm	2.5mm	2.5mm	2.5mm



* Pogram used

Test command (Simulation)	MODE	Normal
	MAIN CODE	50
	SUB CODE	1

* Execution condition (time)

Enforcement	JOB No	Content
time	S 004	When any part in the scanner (reading) section is disassembled or replaced.
:	S 009/Ua 002	When the MCU PWB is repalced.
		In case of U2 trouble
Cycle		
Conditions		When the copy image area (image loss, void area) is not within the specififed range.

* Necessary condition

- 1) The copy magnification ratio is within the specified range.
- 2) The copy distorion is within the specified range.

* Work content

There are following four adjustment items.

The image loss and the void area at the paper lead edge and the rear edge can be adjusted by changing the adjustment values.

Adjustment item	Adjustment mode display (Lighting)	Note
Image lead edge position (Print start position)	Auto copy mode lamp	Used to determine the positions of paper and images. The paper lead edge is aligned with the document lead edge reference position (image lead edge). (Corresponds to the time from detection og the paper lead edge by PIN detector to print start (scanner start).
Image lead edge reference position (Image scannign start position)	Photo copy mode lamp	Used to determine the image lead edge reference position. (Used to determine the distance from the scanner home position to the document oead edge refrence position.)
Lead edge void area (Image loss)	Text copy mode lamp	Used to adjust the lead edge section effective image amount, The image amount scanned until the scanner reaches the image lead edge reference position after starrign scanning and the image amount scanned during the time coresponding to this setting are cut (made invlaid) to form the image loss and the void area.
Rear edge void area	Auto/Photo/ Text copy mode lamp	Used to determine the print image (data) cut timing. The PIN detector detects the paper length. The print image (data) cut timing is determined from the detected paper length and the sub scanning direction image length.

- 1) Enter the SIM 50-1 mode.
- Select the adjustment mode image lead edge position (print start position) with the copy picture quality mode select key.

(The currently set adjustment value is displayed on the copy quantity display.)

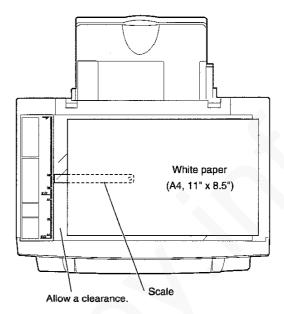
3) Set the value to "50" and press the start button.

(the adjustment value is stored and a copy is made.)

When the set value is increased, the image lead edge position is shifted forward for the paper lead edge position.

When the set value is decreased, the image lead edge position is shifted backward for the paper lead edge position.

4) Place the scale at the document table lead edge reference in the sub scanning direction, and place a white paper (A4, 11" \times 8.5") at a slightely shifted position to the right of the scale.



Select the adjustment mode image lead edge reference position (image scan start position) with the copy picture quality mode select key.

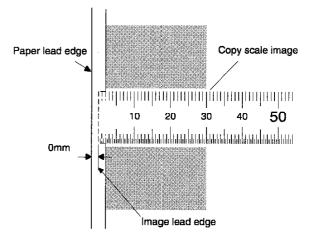
(The currently set adjustment value is displayed on the copy quantity display.)

Press the start button. (Make a copy with the document cover open.)

(A copy is made.)

 Measure the distance between the paper lead edge position and the copy image lead edge reference position (scale image lead edge).

If the scale image is cut halfway, assume the virtual lead edge of the scale image for measurement.



If the distance between the paper lead edge and the image lead edge is not 0 mm, change the set value and press the start button.

(the adjustment value is stored and a copy is made.)

When the set value is increased, the image lead edge position is shifted forward for the paper lead edge position.

When the set value is decreased, the image lead edge position is shifted backward for the paper lead edge position.

(Note)

If this adjustment value is improper, the copy image lead edge position varies when the copy magnification ratio is chanfed.

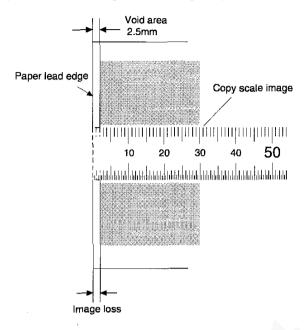
8) Select the adjustment mode lead edge void area (image loss) with the copy picture quality mode select key.

(The currently set adjustment value is displayed on the copy quantity display.)

9) Press the start button.

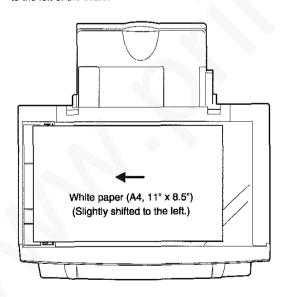
(A copy is made.)

10) Measure the lead edge void area (image loss).



If the distance between the paper lead edge and the copy image lead edge is not 2.5mm, change the set value and press the start button.

11) Place a white paper (A4, 11" × 8.5") at a slightely shifted position to the left of the scale.



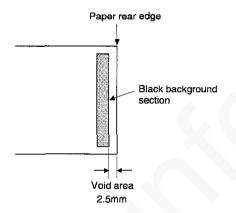
 Select the adjustment mode rear edge void area with the copy picture quality mode select key.

(The currently set adjustment value is displayed on the copy quantity display.)

 Press the start button. (Make a copy with the document cover open.)

(A copy is made.)

14) Measure the rear edge void area.



If the distance between the paper rear edge and the copy image rear edge is not 2.5 mm, change the set value and press the start button.

The adjustment value can be set in the range of 0 ~ 99.

(Note)

Use SIM 50-10 to adjust the main scanning direction image position

* Troubles caused by improper work

 If the void area is less than the specified level, the transfer roller, the fusing roller, the separation pawl, and the paper trnsport section are dirtied with toner.

As a result, print paper is dirtied and paper jams are generated.

* Necessary tools

Name	Scale
Parts code/Price rank	<u> </u>

ADJ 2 Void area (left/right) adjustment

* Adjustment value

(Simulation adjustment value)

	Left void area	Right void area
Range (MIN)	0	0
Range (MAX)	99	99
Standard value	50	50
Default	50	50

(Image loss, void area djustment)

	Left void area	Right void area
Range (MIN)	1.0mm	1.0mm
Range (MAX)	3.0mm	3.0mm
Standard value	2.0mm	2.0mm

* Program used

Test command (Simulation)	MODE	Normal
1	MAIN CODE	50
	SUB CODE	10

* Execution condition (time)

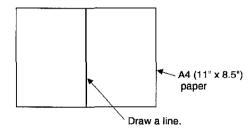
Enforcement	JOB No	Content
time	S 004	When any part in the scanner (reading) section is disassembled or replaced.
	S 009/Ua 002	When the MCU PWB is repalced.
		In case of U2 trouble
Cycle		
Conditions		When the copy image area (image loss, void area) is not within the specified range.

* Necessary condition

- 1) The copy magnification ration is within the specified range.
- 2) The copy distortion is within the specified range.

* Work content

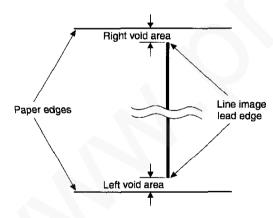
1) Make a test chart as shown below.



- 2) Enter the SIM 50-10 mode.
- 3) Set the test chart made in procedure 1) on the document table.
- 4) Make a copy and measure the left and the right void areas.

(Measure the distance from the left/right edge to the image lead edge.)

If the void area is not within the specified range, perform the following procdure.



Standard value: 2.0 mm

Select the left void area adjustment with the copy picture quality mode select key.

(The currently set adjustment value is displayed on the copy quantity display.)

Adjustment mode	Adjustment mode display (Lighting)	Note
Main scanning direction image position	Photo copy mode lamp	
Main scanning direction image position (SPF mode)	Auto/Photo/Text copy mode lamp	
Left void area	Auto copy mode lamp	
Right void area	Text copy mode lamp	

6) Change the set value and press the start button.

(The adjustment value is stored and a copy is made.)

When the set value is increased, the void area is increased.

When the set value is decreased, the void are is decreased.

When the void area is changed by 1, the void are is changed by 0.1 mm.

Repeat procedurs 4) \sim 6) until the left void are is within the specified range.

Select the right void area adjustment with the copypicture quality mode select key.

(The currently set adjustment value is displayed on the copy quantity display.)

Adjust the right vold area in the same manner as the left void area adjustment.

* Troubles caused by improper work

 If the void area is less than the specified level, the transfer roller, the fusing roller, the separation pawl, and the paper transport section are dirtied with toner.

As a result, print paper is dirtied and paper jams are generated.

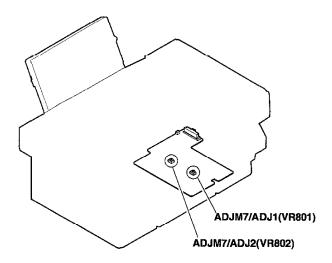
* Necessary tools

1	Name	Scale
	Parts code/Price rank	Address:

ADJ M7 Image process (high voltage) power adjustment

Content			Preliminary work JOB No	After- work JOB No	
ADJ M7	Image process (high voltage)	ADJ 1	Charging voltage adjustment		ADJ M1
	power adjustment	ADJ 2	Developing bias voltage adjustment/check		ADJ M1

* Location



ADJ 1 Charging (main charger) voltage adjustment

* Adjustment value

Range (MIN)	-1050 V
Range (MAX)	-1200 V
Standard value	-1100 V
Default	-1100 V

* Program used

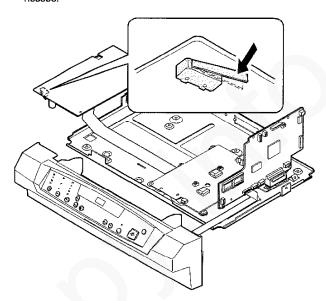
Test command (Simulation)	MODE	Normal
	MAIN CODE	8
	SUB CODE	2

* Execution condition (time)

Enforcement	JOB No	Content	
time	S 009/Ua 004	When replacing the High voltage/motor drive PWB unit	
Cycle		_	
Condition		Print (copy) density is too dark or too light. Though copy density adjustment is executed with the Test command (simulation) 46-1, satisfactory density cannot be obtained.	

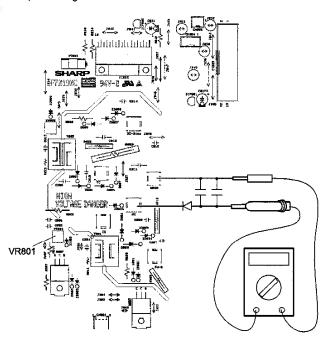
* Work content

 Connect between the power PWB and the PCU PWB, the high voltage/motor drive PWB unit and the operation unit with harnesses.



- 2) Manually turn on the cover switch and turn on the power.
- 3) Execute SIM 8-2. (The charging voltage (main charer) is outputted.)
- 4) Measure the charging (main charger) voltage with a digital multimeter (effective value meter, input impednce 1000MΩ or above). Adjust VR801 so that the output voltage is ~1050 ~ -1200 V.

Before measurement, connect the capacitor and teh diode to the tip of the digital multi-metar as shown below.



* Troubles caused by improper work

- 1) Copy (print) defective (Insufficient density, background copy, dirt, etc.)
- 2) The copy density cannot be adjusted in the proper range with SIM
- The photoconductor is damaged.

* After-work

JOB No.	Content
ADJ M1	Copy density adjustment

* Necessary tools

Name	Digital multi-meter/High voltage probe
Parts code/Price rank	_
Note	Internal impedance 1000 or above, effective value measurement Recommendable unit: (FLUKE 87/FLUKE 80K-40)

Name	Diode
Parts code/Price rank	VHDSV03///-1
Note	Other type with withstand voltage of 2KV or above can be used instead.

Name	Capacitor
Parts code/Price rank	VCKYQ3FB102K
Note	Other type with withstand voltage of 3KV with 1000pF can be used instead.

* Note

1) Use a digital multi-meter (effective value meter, internal impedance of $1000 M\Omega$ or above).

Connect the capacitor and the diode to the tip of the digital multimeter for measurement. If the above conditions are not satisfied, the proper measurement of voltage cannot be made.

2) Since a high voltage is outputted, be careful of electric shock.

ADJ 2 Developing bias voltage adjustment

* Adjustment value

Range (MIN)	-305 V
Range (MAX)	-315 V
Standard value	-310 V
Default	-310 V

* Program used

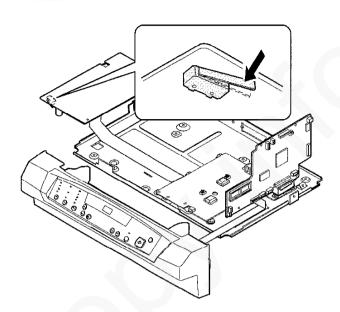
Test command (Simulation)	MODE	Normal
	MAIN CODE	8
	SUB CODE	2

* Execution condition (time)

Enforcement	JOB No	Content	
time	S 009/Ua 004	When replacing the high voltage/motor drive PWB unit	
Cycle		_	
Condition		Print (copy) density is too dark or too light. Though copy density adjustment is executed with the Test command (simulation) 46-1, satisfactory density cannot be obtained.	
		2) Ghost is generated.	

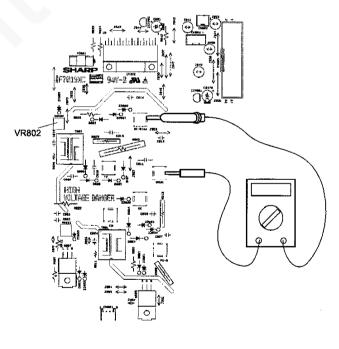
* Work content

 Connect between the power PWB and the PCU PWB, the high voltage/motor drive PWB unit and the operation unit with harnesses.



- 2) Manually turn on the cover switch and turn on the power.
- 3) Execute SIM 8-2. (The developing bias voltage is outputted.)
- 4) Measure the developing bias voltage with the digital multi-meter (effective value meter).

Adjust VR802 so that the output voltage is -310 ± 5 V.



* Troubles caused by improper work

- Copy (print) defective
 (Insufficient density, background copy, dirt, erc.)
 (Ghost)
- 2) The copy density cannot be adjusted with SIM 46-1.
- 3) Photoconductor damage

* After-work

JOB No.	Content
ADJ M1	Copy density adjustment

* Necessary tools

Name	Digital multi-meter/High voltage probe
Parts code/Price rank	-
Note	Internal impedance of 1000MΩ or above, efffective value measurement (Recommendable unit: FLUKE 87/FLUKE 80K-40)

* Note

1) Use a digital multi-meter (effective value meter, internal impedance of $1000M\Omega$ or above).

Connect the capacitor and the diode to the tip of the digital multimeter for measurement. If the above conditions are not satisfied, the proper measurement of voltage cannot be made.

2) Since a high voltage is outputted, be careful of electric shock.

CHI M1 Image process (high votlage) power check

CHI 1 Transfer charger voltage check

* Specified values

Range (MIN)	+3200V	
Range (MAX)	+3700V	
Standard value	+3500V	
Default	+3500V	

* Progarm used

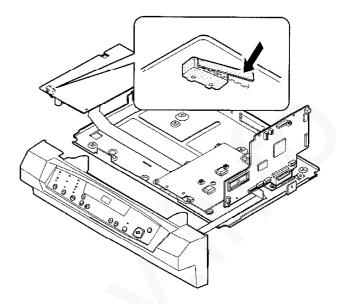
Test command (Simulation)	MODE	Normal
	MAIN CODE	8
	SUB CODE	2

* Execution condition (time)

Enforcement	JOB No	Content	
time	S 009/Ua004	When replacing the high voltage/motor drive PWB unit	
Cycle		_	
Condition		1) Print (copy) density is too dark or too light. Though copy density adjustment is executed with the Test command (simulation) 46-1, satisfactory density cannot be obtained. 2) Ghost is generated.	

* Work content

 Connect between the power PWB and the PCU PWB, the high voltage/motor drive PWB unit and the operation unit with harnesses.

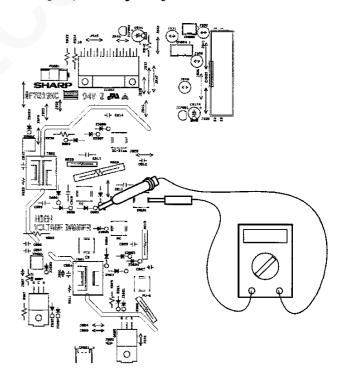


- 2) Manually turn on the cover switch and turn on the power.
- 3) Execute SIM 8-2.

(The transfer charger voltage is outputted.)

 Measure the transfer charger voltage (D805) with the digital multimeter (effective value meter).

Check that the output voltage is $+3200 \sim +3700 \text{V}$. If it is not in the range, replace the high voltage/motor drive PWB unit.



* Troubles caused by improper work

- Copy (print) defective (Insufficient density, background copy, dirt, erc.) (Ghost)
- 2) The copy density cannot be adjusted with SIM 46-1.
- 3) Photoconductor damage

* Necessary tools

Name	Digital multi-meter/High voltage probe
Parts code/Price rank	www.
Note	Internal impedance of 1000MΩ or above, efffective value measurement (Recommendable unit: FLUKE 87/FLUKE 80K-40)

* Note

1) Use a digital multi-meter (effective value meter, internal impedance of $1000M\Omega$ or above).

If the above conditiosn are not satisfied, the proper measurement of voltage cannot be made.

2) Since a high voltage is outputted, be careful of electric shock.

ADJ M8 Fusing temperature adjustment

Content			
ADJ M8	Fusing temperature adjustment	ADJ 1	Fusing temperature adjustment within 20 sheets of continuous print
		ADJ 2	Fusing temperature adjustment after 20 sheets of continuous print

ADJ 1 Fusing temperature adjustment within 20 sheets of continuous printing

ADJ 2 Fusing temperature adjustment after 20 sheets of continuous printing

* Adjustment value

(Test command (simulation) adjustment value)

Fusing temperature adjustment within 20 sheets of continuous printing

Range (MIN)	1 (155°C)	
Range (MAX)	5 (175°C)	
Standard value	0 (160°C)	
Default	0 (160°C)	

Fusing temperature adjustment after 20 sheets of continuous printing

Range (MIN)	1 (155°C)	
Range (MAX)	5 (175°C)	
Standard value	1 (155°C)	
Default	1 (155°C)	

(Adjustment value)

Fusing temperature adjustment within 20 sheets of continuous printing

Adjust to 160°C.

Fusing temperature adjustment after 20 sheets of continuous printing Adjust to 155°C.

* Program used

Fusing temperature adjustment within 20 sheets of continuous printing

Test command (Simulation)	MODE	Normal
	MAIN CODE	43
	SUB CODE	1

Fusing temperature adjustment after 20 sheets of continuous printing

Test command (Simulation)	MODE	Normal
	MAIN CODE	43
· ·	SUB CODE	4

* Execution time

Enforcement	JOB No	Content
time	S 009/Ua 002	When replacing MCU PWB
		In case of U2 trouble
Cycle		-
Condition		

* Job content

(Fusing temperature adjustment within 20 sheets of continuous printing)

1) Enter SIM 43-1 mode.

(The currently set code of the fusing temperature adjustment within 20 sheets of continuous printing is displayed.)

2) Set the adjustment value to 0 (160°C) and press the start button.

(Fusing temperature adjustment after 20 sheets of continuous printing)

 Enter SIM 43-4 mode. (The currently set code of the fusing temperature adjustment after 20 sheets of continuous printing is displayed.)

2) Set the adjustment value to 1 (155°C) and press the start button.

* Trouble caused by improper work

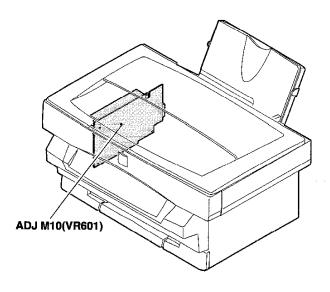
- 1) Fusing abnormality
- 2) Fusing section parts damage
- 3) Paper jam

* Note

Be sure to set to the standard value. If not a trouble may occur.

ADJ M9 Power voltage adjustment

* Location



* Adjustment value

Range (MIN)	23.5V
Range (MAX)	24.5V
Standard value	24V

* Execution time

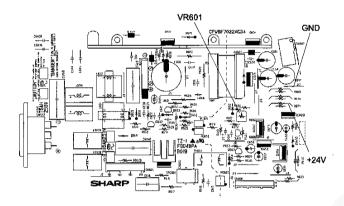
Enforcement	JOB No	Content
time	S 009/Ua 001	When replacing a power in the PWB unit.

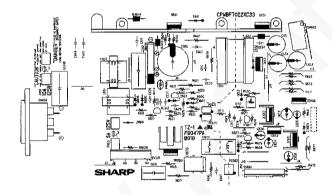
* Necessary condition

1) Adjust with the AC power voltage in the specified range (90 \sim 110% of the standard power voltage).

* Job content

- 1) Manually turn on the cabinet switch.
- 2) Turn on the power.
- Put a digital multi-meter between the check point (24V) on the power PWB and GND.





4) Turn the adjustment volume (VR601) on the power PWB and adjsut the 24V output to 24 $\pm\,0.5V$.

* Trouble caused by improper job

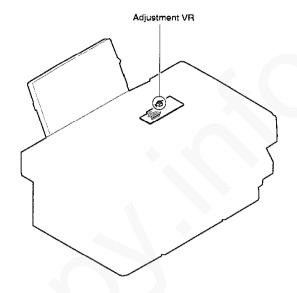
- 1) Circuit malfunction
- 2) Circuit parts damage

* Necessary tool

Name	Digital multi-meter
Parts code/Price rank	

ADJ M10 Copy lamp light quantity adjustment

* Location value



Range (MIN)	3.9 V
Range (MAX)	4.1 V
Standard value	4.0 V
Default	4.0 V

* Program used

Test command (Simulation)	MODE	Normal
	MAIN CODE	63
	SUB CODE	1

* Enforcement time

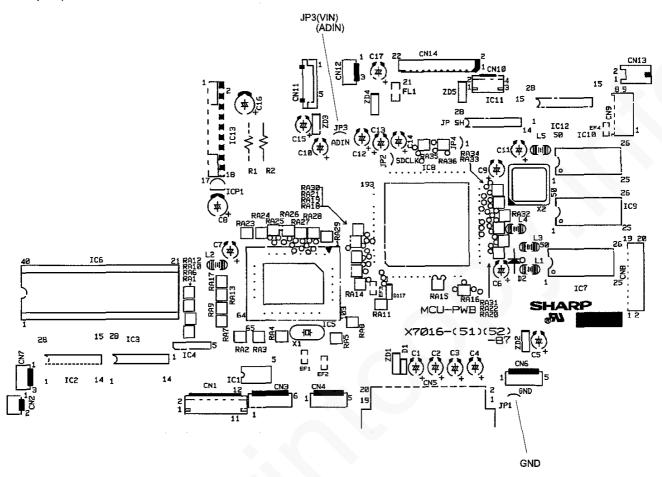
Enforcement	JOB No	Content
time	S 004/Ua 001/ P 002	When replacing the scanner (copy) lamp control PWB
		When replacing the copy lamp
		In case of E7 (05) trouble
		In case of E7 (04) trouble
		In case of E7 (12) trouble
		In case of E7 (15) trouble
Cycle		<u> -</u>
Condition		Normal copy exposure is not obtained.

* Necessary condition

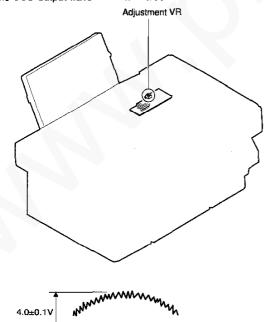
1) The scanner section must be clean.

* Job content

 Put an oscilloscope between the check point JP3 (VIN) on the MCU (PCU) PWB and GND.



- Execute simulation 63-1. (The copy lamp lights up in the scanner unit home position.)
- 3) Turn and adjust the volume on the copy lamp drive PWB so that the CCD output waveform max. value is 4.0 \pm 0.1 V.



* Trouble caused y improper operation

- 1) E7 (05) trouble
- 2) E7 (04) trouble
- 3) E7 (12) trouble
- 4) E7 (15) trouble
- 5) Copy exposure cannot be adjusted.
- 6) Copy exposure abnormality

* Preliminary work

JOB No	Content
S 004	Scanner (reading) section cleaning

* After-work

1	JOB No	Content
	ADJ M1	Copy exposure adjustment

* Necessary tools

Name	Oscilloscope
Parts code/Price rank	_

[8] SIMULATION (Test Command) · USER PROGRAM

1. Simulation

A. Outline and purpose

The simulation function is provided to perform the following items. It is used to grasp the machine operations, trouble positions, early detection of trouble causes and to make various setting and quick servicing

- 1) Various setting
- 2) Setting of specifications and functions
- 3) Trouble cancel
- 4) Operation check
- 5) Check, setting, clear of the counters
- Check and clear of the machine operation state (operation history)
- 7) Transfer of data of adjustments, setting, operation, counters

The operating procedure and the display differs depending on the operation section type of each machine.

There are following typical types.

- Code system: Numeric keys and functions keys are used to enter values and to select the mode.
- Switch system: Simulation content is selected by combination of switch setting.
- Selection system: Values and modes are selected with functions keys. As a special case, a jumper wire is used to connect check points on the PWB to select the mode.

B. Code system simulation

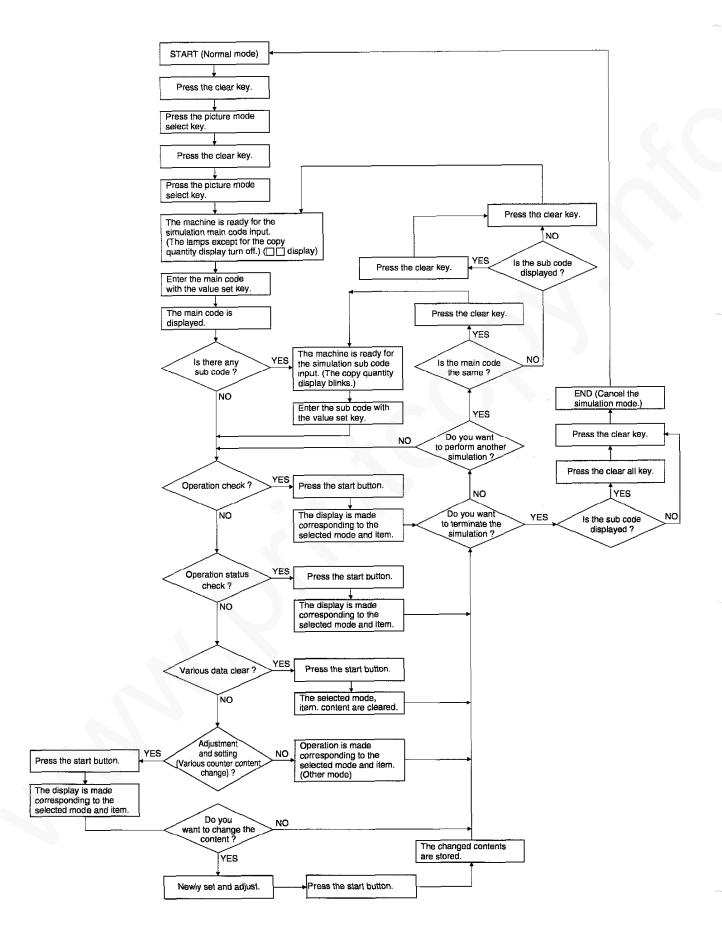
(1) Operating procedure and operation

- * Entering the simulation mode
- Clear key ON → Picture quality mode select key ON → Clear key ON → Picture quality mode select key ON (The machine is ready for entry of the main code of simulation.)
- 2) Main code input by 10-key \rightarrow Start key ON
- 3) Sub code input by 10-key \rightarrow Start key ON

The machine enters the selected simulation mode.

Press the start key to start the operation of the selected simulation.

- * Canceling the simulation and returning to the normal mode
- 1) Press the clear key.



(2) Simulation list

a. Main/Sub

Co	de	F 11 / 15			·			
Main	Sub	Function (Purpose)	Purpose	Section		Item		
1	1	Used to check the operation of the scanner (reading) unit and its control circuit.	Operation test/check	Optical (Image scanning)		Operation		
5	1	Used to check the operation of the operation panel display lamps and the control circuit.	Operation test/check	Operation (Display/ Operation key)		Operation		
	2	Used to check the operation of the heater lamp and its control circuit. Used to check the operation of the fan motor and its control circuit.	Operation test/check	Fixing (Fusing)		Operation		
	3	Used to check the operation of the copy lamp and its control circuit.	Operation test/check	Optical (Image scanning)		Operation		
6	1	Used to check the operation of the paper feed (clutch, solenoid and its control circuit.	Operation test/check	Paper transport		Operation		
7	1	Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying.	Operation test/check	Others		Operation		
	2	Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying. (In this simulation, the detection functions of paper presence/empty and a paper jam are disabled.)	Operation test/check	Others		Operation		
	6	Used to check the warm up time and the operation of all the units and to make aging (intermittent operation) with copying. Each section can be checked during copying.	Operation test/check	Others				
8	1	Used to check the developing bias voltage, the main charger voltage, and the transfer charger voltage and the operation of their control circuit.	Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)				
	2	Used to adjust and check the operation of the developing bias voltage, the main charger voltage, and the transfer charger voltage, and their control circuit.	Adjustment/ Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)				
	3	Used to check the operation of each voltage of the main charger and its control circuit.	Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)				
14	0	Used to cancel the self diag other than U2 trouble.	Clear/Cancel (Trouble etc.)			Trouble	Error	
16	0	Used to cancel the self diag U2 trouble.	Clear/Cancel (Trouble etc.)			Trouble	Error	
22	5	Used to check the total counter value.	User data output/Check (Display/Print)			Counter	Total	
	12	Used to check the print count value of the photoconductor.	Operation data output/Check (Display/Print)	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Counter		
	14	Used to check the ROM version.	Others	PCU		Software		
	21	Used to check the count of use (count of scanning) of the scanner (reading) unit.	Operation data output/Check (Display/Print)	Optical (Image scanning)		Counter		
24	7	Used to clear the photoconductor drum counter.	Data clear	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Counter		
	13	Used to clear the count of use (count of scanning) of the scanner (reading) unit.	Data clear	Optical (Image scanning)		Counter		
25	1	Used to check the operation of the main drive (excluding the scanner (reading) section) section.	Operation test/check	DRIVE		Operation		
	10	Used to check the operation of the scanner (writing) motor and its control circuit.	Operation test/check	Laser (Exposure)		Operation		

Co Vain	Sub	Function (Purpose)	Purpose	Section	lt.	em
26	6	Used to set the destination.	Setting	- 	Specifications	T
	7	Used to check the machine (hardware) specifications.	Operation data output/Check (Display/Print)	PCU	Specifications	Operation mode (Common)
26	20	Used to set the rear void area YES/NO.	Setting		Specifications	Operation mode (Common)
	30	Used to set the CE mark conforming operation mode. (For prevention against flicker when driving the fusing heater lamp)	Setting	Fixing (Fusing)	Specifications	Operation mode (Common)
	38	Used to set the photoconductor drum operation inhibit YES/NO when the life is reached.	Setting		Specifications	Operation mode (Common)
	40	Used to set the scanner (writing) motor OFF timing.	Setting	Laser (Exposure)	Specifications	Operation mode (Common)
30	1	Used to check the operation of the sensors and detectors in the paper feed section, the paper transport section, and the paper exit section and their control circuit.	Operation test/check		Operation	
43	1	Used to set the fusing temperature. Used to set the fusing temperature after 20th sheet in the multi print mode.	Setting Setting	Fixing (Fusing) Fixing (Fusing)	Operation Operation	
46	1	Used to adjust the copy density. (The print density in each mode and the overall print density (overall setting of the specified density gradient) can be adjusted.	Adjustment		Picture quality	Density
48	1	Used to adjust the coy magnification ratio (in the main scanning direction and the sub scanning direction).	Adjustment		Picture quality	
50	1	Used to adjust the copy image position o the print paper in the copy mode and to adjust the void area (image loss).	Adjustment		Picture quality	
	10	Used to adjust the main scanning direction print image position. (Main scanning direction void area adjustment)	Adjustment	ICU	Picture quality	
61	3	Used to check the operation of the scanner (writing) section.	Operation test/check	Laser (Exposure)	Operation	
63	1	Used to check the result of shading correction. (The shading correction data is displayed.)	Operation data output/Check (Display/Print)	Optical (Image scanning)	Operation	
	2	Used to check the result of shading correction (dark component). (The shading correction (dark component) data is displayed.)	Operation data output/Check (Display/Print)	Optical (Image scanning)	Operation	
64	1	Used to check the operation (self print operation) of the printer section.	Operation test/check	Printer	Operation	
	2	Used to set the scanner (reading) section's operation ENABLE/DISABLE. In case of a breakdown of the scanner (reading) section, if this simulation is set to DISABLE, the machine can be used only as a printer.	Operation data output/Check (Display/Print)	Optical (Image scanning)	Operation	
71	_	Used to check the operation of paper feed, transport, and exit (self print operation).	Operation test/check	Printer	Operation	
81	0	Used to set the total counter value to a desired value.	Setting	Memory	Counter	
83	11	Used to set the photoconductor counter value to a desired value.	Setting	Memory	Counter	
	11	Used to set the scanner (reading) counter value to a desired value.	Setting	Memory	Counter	
84 88	1	Used to clear the total counter. Used to clear all memory data (to set to	Data clear Data clear	Memory Memory	Counter Data	
89	1	the default). Used to clear all the count-up counters.	Data clear/	Memory	Counter	ļ

b. Usage

Purpose	Section	į lt	em	Function (Purpose)	Code Main Su		
Adjustment		Picture quality		Used to adjust the coy magnification ratio (in the main scanning direction and the sub scanning direction).	48	1	
		Picture quality		Used to adjust the copy image position of the print paper in the copy mode and to adjust the void area (image loss).	50	1	
		Picture quality	Density	Used to adjust the copy density. (The print density in each mode and the overall print density (overall setting of the specified density gradient) can be adjusted.	46	1	
	ICU	Picture quality		Used to adjust the main scanning direction print image position. (Main scanning direction void area adjustment)	50	1(
Adjustment/Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)			Used to adjust and check the operation of the developing bias voltage, the main charger voltage, and the transfer charger voltage, and their control circuit.	8	2	
Setting		Specifications		Used to set the destination.	26	6	
		Specifications	Operation mode (Common)	Used to set the rear void area YES/NO.		20	
		Specifications	Operation mode (Common)	Used to set the photoconductor drum operation inhibit YES/NO when the life is reached.		38	
	Fixing (Fusing)	Specifications	Operation mode (Common)	Used to set the CE mark conforming operation mode. (For prevention against flicker when driving the fusing heater lamp)		30	
	Fixing (Fusing)	Operation		Used to set the fusing temperature.	43	1	
	Fixing (Fusing)	Operation		Used to set the fusing temperature after 20th sheet in the multi print mode.		4	
	Memory	Counter		Used to set the total counter value to a desired value.	81	0	
	Memory	Counter		Used to set the photoconductor counter value to a desired value.	83	5	
	Memory	Counter		Used to set the scanner (reading) counter value to a desired value.		11	
	Laser (Exposure)	Specifications	Operation mode (Common)	Used to set the scanner (writing) motor OFF timing.	26	40	
Operation test/check		Operation		Used to check the operation of the sensors and detectors in the paper feed section, the paper transport section, and the paper exit section and their control circuit.	30	1	
	Paper transport	Operation		Used to check the operation of the paper feed (clutch, solenoid and its control circuit.	6	1	
	Optical (Image scanning)	Operation		Used to check the operation of the scanner (reading) unit and its control circuit.	1	1	
	Optical (Image scanning)	Operation		Used to check the operation of the copy lamp and its control circuit.	5	3	
	Image process (Photoconductor/ Developing/Transfer/ Cleaning)			Used to check the developing bias voltage, the main charger voltage, and the transfer charger voltage and the operation of their control circuit.	8	1	
	Image process (Photoconductor/ Developing/Transfer/ Cleaning)			Used to check the operation of each voltage of the main charger and its control circuit.		3	
	Operation (Display/ Operation key)	Operation		Used to check the operation of the operation panel display lamps and the control circuit.	5	1	
	Fixing (Fusing)	Operation		Used to check the operation of the heater lamp and its control circuit. Used to check the operation of the fan motor and its control circuit.	5	2	
	DRIVE	Operation		Used to check the operation of the main drive (excluding the scanner (reading) section) section.	25	1	
Operation test/check	Printer	Operation		Used to check the operation (self print operation) of the printer section.	64	1	

Purpose	Sectio	п	is	tem	Function (Purpose)	-	ode Leub
Operation test/check	Printer		Operation		Used to check the operation of paper feed, transport, and exit (self print	Main 71	Sub 1
	Laser (Exposure)		Operation		operation). Used to check the operation of the scanner (writing) motor and its control circuit.	25	10
	Laser (Exposure)		Operation		Used to check the operation of the scanner (writing) section.	61	3
	Others				Used to check the warm up time and the operation of all the units and to make aging (intermittent operation) with copying. Each section can be checked during copying.	7	6
	Others		Operation		Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying.		1
	Others		Operation		Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying. (In this simulation, the detection functions of paper presence/empty and a paper jam are disabled.)		2
Data clear	Optical (Image scanning)		Counter		Used to clear the count of use (count of scanning) of the scanner (reading) unit.	24	13
	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Counter		Used to clear the photoconductor drum counter.		7
	Memory		Counter		Used to clear the total counter.	84	1
	Memory		Data		Used to clear all memory data (to set to the default).	88	1
Data clear/Setting	Memory		Counter		Used to clear all the count-up counters.	89	1
Clear/Cancel (Trouble etc.)			Trouble	Error	Used to cancel the self diag other than U2 trouble.	14	0
			Trouble	Error	Used to cancel the self diag U2 trouble.	16	0
Operation data output/Check	Optical (Image scanning)		Counter		Used to check the count of use (count of scanning) of the scanner (reading) unit.	22	21
(Display/Print)	Optical (Image scanning)		Operation		Used to check the result of shading correction. (The shading correction data is displayed.)	63	1
	Optical (Image scanning)		Operation		Used to check the result of shading correction (dark component). (The shading correction (dark component) data is displayed.)		2
	Optical (Image scanning)		Operation		Used to set the scanner (reading) section's operation ENABLE/DISABLE. In case of a breakdown of the scanner (reading) section, if this simulation is set to DISABLE, the machine can be used only as a printer.	64	2
	image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Counter		Used to check the print count value of the photoconductor.	22	12
	PCU		Specifications	Operation mode (Common)	Used to check the machine (hardware) specifications.	26	7
User data output/Check (Display/Print)			Counter	Total	Used to check the total counter value.	22	5
Others	PCU		Software		Used to check the ROM version.	7	14

c. Section

Section	Purpose	Item	Function (Purpose)	Co	ode
	T dipose	Item	runciion (ruipose)	Main	Sub
Paper transport	Operation test/check	Operation	Used to check the operation of the paper feed (clutch, solenoid and its control circuit.	6	1
Optical (Image scanning)	Operation data output/Check (Display/Print)	Counter	Used to check the count of use (count of scanning) of the scanner (reading) unit.	22	21
	Data clear	Counter	Used to clear the count of use (count of scanning) of the scanner (reading) unit.	24	13

Section Ontical (Image)		Purpose		tem	Function (Purpose)	Code Main	
Optical (Image scanning)		Operation test/check	Operation		Used to check the operation of the scanner (reading) unit and its control circuit.	1	Sut 1
		Operation test/check	Operation		Used to check the operation of the copy lamp and its control circuit.	5	3
		Operation data output/Check (Display/Print)	Operation		Used to check the result of shading correction. (The shading correction data is displayed.)	63	1
		Operation data output/Check (Display/Print)	Operation		Used to check the result of shading correction (dark component). (The shading correction (dark component) data is displayed.)		2
		Operation data output/Check (Display/Print)	Operation		Used to set the scanner (reading) section's operation ENABLE/DISABLE. In case of a breakdown of the scanner (reading) section, if this simulation is set to DISABLE, the machine can be used only as a printer.	64	2
Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Operation tost/check			Used to check the developing bias voltage, the main charger voltage, and the transfer charger voltage and the operation of their control circuit.	8	1
		Adjustment/Operation test/check			Used to adjust and check the operation of the developing bias voltage, the main charger voltage, and the transfer charger voltage, and their control circuit.		2
		Operation test/check			Used to check the operation of each voltage of the main charger and its control circuit.		3
	Photo conductor	Operation data output/Check (Display/Print)	Counter		Used to check the print count value of the photoconductor.	22	12
		Data clear	Counter		Used to clear the photoconductor drum counter.	24	7
Operation (Display/ Operation key)		Operation test/check	Operation		Used to check the operation of the operation panel display lamps and the control circuit.	5	1
Fixing (Fusing)		Setting	Specifications	Operation mode (Common)	Used to set the CE mark conforming operation mode. (For prevention against flicker when driving the fusing heater lamp)	26	30
		Operation test/check	Operation		Used to check the operation of the heater lamp and its control circuit. Used to check the operation of the fan motor and its control circuit.	5	2
		Setting Setting	Operation Operation		Used to set the fusing temperature. Used to set the fusing temperature after	43	1
DRIVE		Operation test/check	Operation		20th sheet in the multi print mode. Used to check the operation of the main drive (excluding the scanner (reading) section) section.	25	1
PCU		Operation data output/Check (Display/Print)	Specifications	Operation mode (Common)	Used to check the machine (hardware) specifications.	26	7
ICU		Others Adjustment	Software Picture quality		Used to check the ROM version. Used to adjust the main scanning direction print image position. (Main scanning direction void area adjustment)	50 50	10
Printer		Operation test/check	Operation		Used to check the operation (self print operation) of the printer section.	64	1
		Operation test/check	Operation		Used to check the operation of paper feed, transport, and exit (self print operation).	71	1
Memory		Setting	Counter		Used to set the total counter value to a desired value.	81	0
		Setting	Counter		Used to set the photoconductor counter value to a desired value.	83	5
		Setting	Counter		Used to set the scanner (reading) counter value to a desired value.		11
		Data clear	Counter		Used to clear the total counter.	84	1
	:	Data clear/Setting Data clear	Counter Data		Used to clear all the count-up counters. Used to clear all memory data (to set to	88 88	1
Laser (Exposure)		Setting	Specifications	Operation mode (Common)	the default). Used to set the scanner (writing) motor OFF timing.	26	40

Section	Purpose	Item	Function (Purpose)	Co	ode
Section	rurpose	, tein	Function (Fulpose)	Main	Sub
Laser (Exposure)	Operation test/check	Operation	Used to check the operation of the scanner (writing) motor and its control circuit.	25	10
	Operation test/check	Operation	Used to check the operation of the scanner (writing) section.	61	3
Others	Operation test/check		Used to check the warm up time and the operation of all the units and to make aging (intermittent operation) with copying. Each section can be checked during copying.	7	6
	Operation test/check	Operation	Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying.		1
	Operation test/check	Operation	Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying. (In this simulation, the detection functions of paper presence/empty and a paper jam are disabled.)		2

d. Item

	tem	Purpose	Sectio	2	Function (Purpose)	Co	ode
	(Cili	i uipose	Jectio	11	runction (Fulpose)	Main	Sub
Picture quality		Adjustment			Used to adjust the coy magnification ratio (in the main scanning direction and the sub scanning direction).	48	1
		Adjustment			Used to adjust the copy image position o the print paper in the copy mode and to adjust the void area (image loss).	50	1
		Adjustment	ICU		Used to adjust the main scanning direction print image position. (Main scanning direction void area adjustment)		10
	Density	Adjustment			Used to adjust the copy density. (The print density in each mode and the overall print density (overall setting of the specified density gradient) can be adjusted.	46	1
Specifications		Setting			Used to set the destination.	26	6
	Operation mode (Common)	Setting			Used to set the rear void area YES/NO.		20
		Setting			Used to set the photoconductor drum operation inhibit YES/NO when the life is reached.		38
		Setting	Fixing (Fusing)		Used to set the CE mark conforming operation mode. (For prevention against flicker when driving the fusing heater lamp)		30
		Operation data output/Check (Display/Print)	PCU		Used to check the machine (hardware) specifications.		7
		Setting	Laser (Exposure)		Used to set the scanner (writing) motor OFF timing.	26	40
Trouble	Error	Clear/Cancel (Trouble etc.)			Used to cancel the self diag other than U2 trouble.	14	0
		Clear/Cancel (Trouble etc.)			Used to cancel the self diag U2 trouble.	16	0
Software		Others	PCU		Used to check the ROM version.	22	14
Counter	,	Data clear	Optical (Image scanning)		Used to clear the count of use (count of scanning) of the scanner (reading) unit.	24	13
		Operation data output/Check (Display/Print)	Optical (Image scanning)		Used to check the count of use (count of scanning) of the scanner (reading) unit.	22	21
		Data clear	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Used to clear the photoconductor drum counter.	24	7
		Operation data output/Check (Display/Print)	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Used to check the print count value of the photoconductor.	22	12

	ltem	Purpose	Section	Function (Purpose)	Main	Sub
Counter		Setting	Memory	Used to set the total counter value to a desired value.	81	0
		Setting	Memory	Used to set the photoconductor counter value to a desired value	83	5
		Setting	Memory	Used to set the scanner (reading) counter value to a desired value.		11
		Data clear	Memory	Used to clear the total counter.	84	1
		Data clear/Setting	Memory	Used to clear all the count-up counters.	89	1
	Total	User data output/Check (Display/Print)		Used to check the total counter value.	22	5
ata		Data clear	Memory	Used to clear all memory data (to set to the default).	88	1
peration		Operation test/check		Used to check the operation of the sensors and detectors in the paper feed section, the paper transport section, and the paper exit section and their control circuit.	30	4
		Operation test/check	Paper transport	Used to check the operation of the paper feed (clutch, solenoid and its control circuit.	6	1
		Operation test/check	Optical (Image scanning)	Used to check the operation of the scanner (reading) unit and its control circuit.	1	1
		Operation test/check	Optical (Image scanning)	Used to check the operation of the copy lamp and its control circuit.	5	3
		Operation data output/Check (Display/Print)	Optical (Image scanning)	Used to check the result of shading correction. (The shading correction data is displayed.)	63	1
		Operation data output/Check (Display/Print)	Optical (Image scanning)	Used to check the result of shading correction (dark component). (The shading correction (dark component) data is displayed.)		2
		Operation data output/Check (Display/Print)	Optical (Image scanning)	Used to set the scanner (reading) section's operation ENABLE/DISABLE. In case of a breakdown of the scanner (reading) section, if this simulation is set to DISABLE, the machine can be used only as a printer.	64	2
		Operation test/check	Operation (Display/ Operation key)	Used to check the operation of the operation panel display lamps and the control circuit.	5	1
		Setting	Fixing (Fusing)	Used to set the fusing temperature.	43	1
		Setting	Fixing (Fusing)	Used to set the fusing temperature after 20th sheet in the multi print mode.		4
		Operation test/check	Fixing (Fusing)	Used to check the operation of the heater lamp and its control circuit. Used to check the operation of the fan motor and its control circuit.	5	2
		Operation test/check	DRIVE	Used to check the operation of the main drive (excluding the scanner (reading) section) section.	25	1
		Operation test/check	Printer	Used to check the operation (self print operation) of the printer section.	64	1
		Operation test/check	Printer	Used to check the operation of paper feed, transport, and exit (self print operation).	71	1
		Operation test/check	Laser (Exposure)	Used to check the operation of the scanner (writing) motor and its control circuit.	25	11
		Operation test/check	Laser (Exposure)	Used to check the operation of the scanner (writing) section.	61	3
		Operation test/check	Others	Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying.	7	1
		Operation test/check	Others	Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying. (In this simulation, the detection functions of paper presence/empty and a paper jam are disabled.)		2

(3) Details of simulations

1

] - 1	Purpose	Operation test/check
	Function (Purpose)	Used to check the operation of the scanner (reading) unit and its control circuit.
	Section	Optical (Image scanning)
	Item	Operation
	Operation/ Procedure	Set the copy magnification ratio to any desired level and press the start button. The scanner scans (reads) once at the scanning speed corresponding to the set copy magnification ratio. At that time, the operation of the scanner home position sensor (MHPS) can be checked wit the photoconductor lamp. When the scanner is at the home position, that is, when the scanner home position sensor (MHPS) detects the scanner, the photoconductor lamp lights up.
	Note	

5 -1	Purpose	Operation test/check
	Function (Purpose)	Used to check the operation of the operation panel display lamps and the control circuit.
	Section	Operation (Display/Operation key)
	Item	Operation
	Operation/ Procedure	All the lamps and value displays on the operation panel are lighted for 5 sec.
	Note	
5 -2	Purpose	Operation test/check
	Function (Purpose)	Used to check the operation of the heater lamp and its control circuit. Used to check the operation of the fan motor and its control circuit.
	Section	Fixing (Fusing)
	Item	Operation
	Operation/ Procedure	The heater lamp repeat ON for 500msec and OFF for 500msec each 5 times. During this time, the fan motor rotates.
	Note	
5 -3	Purpose	Operation test/check
	Function (Purpose)	Used to check the operation of the copy lamp and its control circuit.
	Section	Optical (Image scanning)
	Item	Operation
	Operation/ Procedure	The copy lamp is lighted for 5 sec.
	Note	

1 Purpose	Operation test/check
Function (Purpose)	Used to check the operation of the paper feed (clutch, solenoid and its control circuit.
Section	Paper transport
Item	Operation
Operation/ Procedure	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Note	

7 - 1	Purpose	Operation test/check
	Function (Purpose)	Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying.
	Section	Others
	Item	Operation
	Operation/ Procedure	1) After completion of simulation, warming up is started. 2) Counting is made every second and the count value is displayed. 3) After completion of warming up, counting is stopped and the ready lamp is lighted. 4) Press the clear key. (Once) 5) Set the copy quantity. 6) Press the start key. Copying is made repeatedly to make the set quantity of copy.
	Note	
-2	Purpose	Operation test/check
	Function (Purpose)	Used to check the warm up time and the operation of all the units and to make aging with copying. Each section can be checked during copying. (In this simulation, the detection functions of paper presence/empty and a paper jam are disabled.)
	Section	Others
	Item	Operation
	Operation/ Procedure	Basically the same operation is performed as SIM 7-1. However, paper empty or presence and paper jam are ignored.
	Note	
-6	Purpose	Operation test/check
	Function (Purpose)	Used to check the warm up time and the operation of all the units and to make aging (intermittent operation) with copying. Each section can be checked during copying.
	Section	Others
	Item	
	Operation/ Procedure	Basically the same operation is performed as SIM 7-1. Similarly with SIM 7-1, copying is made in the unit of the set quantity, however there is an 3sec interval between the set quantities.
	Note	

8 - 1	Purpose	Operation test/check
	Function (Purpose)	Used to check the developing bias voltage, the main charger voltage, and the transfer charger voltage and the operation of their control circuit.
	Section	Image process (Photoconductor/Developing/Transfer/Cleaning)
	item	
	Operation/ Procedure	The following high voltages are outputted for 30 sec. * Transfer charger voltage (DC component + AC component) * Main charger voltage (DC component + AC component)
	Note	
-2	Purpose	Adjustment/Operation test/check
	Function (Purpose)	Used to adjust and check the operation of the developing bias voltage, the main charger voltage, and the transfer charger voltage, and their control circuit.
	Section	Image process (Photoconductor/Developing/Transfer/Cleaning)
	Item	
	Operation/ Procedure	The following high voltages are outputted for 30 sec. * Transfer charger voltage (DC component + AC component) * Main charger voltage (DC component + AC component) * Developing bias voltage
	Note	
] -3	Purpose	Operation test/check
	Function (Purpose)	Used to check the operation of each voltage of the main charger and its control circuit.
	Section	Image process (Photoconductor/Developing/Transfer/Cleaning)
	item	
	Operation/ Procedure	The following high voltage is outputted for 30 sec. * Main charger voltage (Only the DC component is outputted.)
	Note	

4				
14 - 0	Purpose	Clear/Cancel (Trouble etc.)		·
	Function (Purpose)	Used to cancel the self diag other	than U2 trouble.	, , , , , , , , , , , , , , , , , , ,
	Section			
	Item	Trouble	Error	
	Operation/ Procedure			
	Note			

16 -0	Purpose	Clear/Cancel (Trouble etc.)		
	Function (Purpose)	Used to cancel the self diag U2 trouble.		
	Section			
	Item	Trouble	Error	
	Operation/ Procedure	·		
	Note			

22					
22 -5	Purpose	User data output/Check (Display/Print)			
	Function (Purpose)	Used to check the total counter value.			
	Section				
	Item	Counter Total			
	Operation/ Procedure	The total print counter value is displayed in 3 digits of each two times. The display is made repeatedly and continuously.			
		(Example) Total print counter value = 12345			
		(Display content) 012 \rightarrow Blank \rightarrow 345 \rightarrow Blank \rightarrow 012 (Display time) 0.7sec 0.3sec (short) 0.7sec 1.0sec (long) 0.7sec			
	Note				
22 - 12	Purpose	Operation data output/Check (Display/Print)			
	Function (Purpose)	Used to check the print count value of the photoconductor.			
	Section	Image process Photo conductor (Photoconductor/Developing/Transfer/Cleaning)			
	Item	Counter			
	Operation/ Procedure	The display system and the method are the same as those of SIM 22-5 (Total print counter display).			
	Note				
22 - 14	Purpose	Others			
	Function (Purpose)	Used to check the ROM version.			
	Section	PCU			
	Item	Software			
	Operation/ Procedure	The ROM version on the MCU PWB is displayed in 3 digits on the copy quantity display. If any trouble occurs in the software operation, check the version with this simulation.			
	Note				

2 -21	Purpose	Operation data output/Check (Display/Print)
	Function (Purpose)	Used to check the count of use (count of scanning) of the scanner (reading) unit.
	Section	Optical (Image scanning)
	Item	Counter
	Operation/ Procedure	The display system and the method are the same as those of SIM 22-5 (Total print counter display).
	Note	

24 - 7	Purpose	Data clear
	Function (Purpose)	Used to clear the photoconductor drum counter.
	Section	Image process Photo conductor (Photoconductor/Developing/Transfer/Cleaning)
	Item	Counter
	Operation/ Procedure	
	Note	
24 - 13		
4 - 13	Purpose	Data clear
4 - 13	Purpose Function (Purpose)	Data clear Used to clear the count of use (count of scanning) of the scanner (reading) unit.
4 - 13	Function	
······································	Function (Purpose)	Used to clear the count of use (count of scanning) of the scanner (reading) unit.
4 -13	Function (Purpose)	Used to clear the count of use (count of scanning) of the scanner (reading) unit. Optical (Image scanning)

Purpose	Operation test/check
Function (Purpose)	Used to check the operation of the main drive (excluding the scanner (reading) section) section.
Section	DRIVE
Item	Operation
Operation/ Procedure	The main motor rotates for 30 sec. During the motor rotation, one of the following two operations is performed depending on installation of the developer cartridge. 1) When the developer cartridge is installed: (The following high voltages are outputted.) * Main charger voltage * Transfer charger voltage * Developer bias voltage
	 When the developer cartridge is not installed: The high voltage is not outputted and the main motor rotates only.
Note	

25 - 10	Purpose	Operation test/check	
	Function (Purpose)	Used to check the operation of the scanner (writing) motor and its control circuit.	
	Section	Laser (Exposure)	
	Item	Operation	
	Operation/ Procedure	The scanner (write) motor rotates for 30 sec.	
	Note		

Purpose Setting

Function (Purpose)

Section

Item Specifications

Operation/ Procedure

1) The currently set code of the destination is displayed.
2) To change the set content, enter the code of your desired

To change the set content, enter the code of your desired setting and press the start button.

Destination code		n code Detected paper size		
Set value	Destination	Paper type	Paper width detector ON	Paper width detector OFF
0		Inch series	11 × 8.5	8.5 × 5.5
1	EX Japan	AB series	A4	A5
2	Japan	AB series	A4	B5

When the set value is changed, the paper size specification and the fixed, enlarged, and reduced copy magnification ratios are changed.

Note

Operation/ Procedure The currently set code of the machine operation specification is displayed.

MODEL	COPY SPEED	PRINT SPEED	PRINTER FUNCTION	CODE (DISPLAY)
XE60/62	6CPM		NO	C6
XE80/82/84	6СРМ	8PPM	YES	CP6
	8CPM		NO	C8
	8СРМ	8PPM	YES	CP8

Note

26 - 20 Purpose Setting Used to set the rear void area YES/NO. **Function** (Purpose) Section Operation mode (Common) Item Specifications Operation/ 1) The currently set code of the rear void area YES/NO is displayed. Procedure 2) To change the set content, enter the code of your desired setting and press the start button. Set code Rear edge void area 0

NO

The rear edge void amount can be adjusted with SIM 50-1.

Be sure to set to "0" (Rear edge void area YES).

Note

26 - 30 Purpose Setting

> Function Used to set the CE mark conforming operation mode. (For prevention against flicker when driving the fusing (Purpose) heater lamp)

Section Fixing (Fusing)

Item Specifications Operation mode (Common)

Operation/ Procedure

- 1) The currently set code of the CD mark conformity (Flicker prevention) is displayed.
- To change the set content, enter the code of your desired setting and press the start button. The set content is stored.

Set code	CE mark conformity operation (Flicker prevention)
0	YES
1	NO

When the power of this machine is turned on, if any lamp flickers during printing, set this setting to "1" (YES). Then the phenomenon may be prevented or reduced.

Note

26 - 38 Purpose Setting

> **Function** (Purpose)

Used to set the photoconductor drum operation inhibit YES/NO when the life is reached.

Section

ltem Specifications Operation mode (Common)

Operation/ Procedure

- 1) The currently set code of the machine operation at photoconductor drum life is displayed.
- 2) To change the set content, enter the code of your desired setting and press the start button.

Set code	Machine operation at photoconductor life
0	Operation stop
1	Operation allowed

When this is set to "1," the copy/print operation can be performed even if the photoconductor drum reaches its life (20K). At that time, the copy/print operation can be performed regardless of the photoconductor drum counter value. When set to "0," if the photoconductor drum counter reaches the life (20K), the copy/print operation cannot be performed. If the photoconductor drum counter reaches the life (20K) during continuous copy/print operation, the machine completes its job before disabling the operation.

Note

-40	Purpose	Setting						
	Function (Purpose)	Used to set the scanner (writing) motor OFF timing.						
	Section	Laser (Exposure)						
	Item	Specifications Operation mode (Common)						
				, (
	Operation/ Procedure			r OFF timing after completion of printing is displayed. lesired setting and press the start button.				
				r OFF timing after completion of printing is displayed.				
		2) To change th	e set content, enter the code of your d	r OFF timing after completion of printing is displayed.				
		To change the Setting code	e set content, enter the code of your d Scanner (writing) motor OFF timing	r OFF timing after completion of printing is displayed.				
		To change the Setting code	e set content, enter the code of your d Scanner (writing) motor OFF timing 0 sec	r OFF timing after completion of printing is displayed.				

- 1	Purpose	Operation test/check							
	Function (Purpose)	Used to check the operation of the sensors and detectors in the paper feed section, the paper transport section, and the paper exit section and their control circuit.							
	Section								
	Item	Operation							
	Operation/	The paper detectors operation	ns can be checked w	ith lighting of the lamps on the operation panel.					
	Procedure	Detector name		Monitor lamp					
		Paper empty detector	PE SENSOR	Developer cartridge replacement lamp					
		Paper entry detector	PIN SENSOR	Paper jam lamp					
		Paper exit detector	POUT	Photoconductor cartridge replacement lamp					

Note

43 -1	Purpose	Setting		
	Function (Purpose)	Used to set	the fusing temperature.	
	Section	Fixing (Fusir	ng)	
	Item	Operation		711111111111111111111111111111111111111
	Operation/ Procedure	2) To chang press the Be sure to se	-	temperature (normal state) is displayed. Perature, press the code corresponding to the standard set temperature and our.
		Set code	Fusing temperature (°C)	
		0	160	
		1	155	
		2	150	
		3	165	
		4	170	
		5	175	

Be sure to set to the specified value (default).

43 - 4	Purpose	Setting
	Function (Purpose)	Used to set the fusing temperature after 20th sheet in the multi print mode.
	Section	Fixing (Fusing)
	Item	Operation
	Operation/ Procedure	The currently set code of the fusing temperature (after 20th sheet of continuous printing) is displayed. To change to the standard set temperature, press the code corresponding to the standard set temperature and press the start button.
		Be sure to set to "1" (155°C).

Set code	Fusing temperature (°C)
0	160
1	155
2	150
3	165
4	170

	5	175
Note	If not a trai	able may enough
NOIE	ii not, a trot	uble may occur.

-1 Purpo	se Adjustment	
Functi (Purpe		the overall print density (overall setting of the specified density gradient) car
Section	n	
Item	Picture quality	Density
Opera Proce	be automatically calculated and adjust The gamma curve (gradient) is fixed a gamma curve is shifted (with the fixed Therefore, the overall copy density is The above adjustment is made for ea Each copy mode and each copy dens value can be set in the range of 0 ~ 1) Select the picture quality mode wit (The currently set copy density adj 2) To change the copy density, chang (The adjustment value is stored an	and cannot be changed. By changing the adjustment value, however, the digradient), changed, changed, choopy mode, sity level (5 steps) have their own gamma curve (gradient). The adjustment 99. In the copy picture quality mode select key, ustment level is displayed on the copy quantity display.) The adjustment value and press the start button.

Adjustment mode	Mode display lamp	Density level	Density (Test chart UKOG-0162FCZZ gray scale density level)
Auto copy mode	Auto copy mode lamp		Gray scale "3" is slightly copied.
Text copy mode	Text copy mode lamp	3	Gray scale "3" is slightly copied.
Photo copy mode	Photo copy mode lamp	3	Gray scale "2" is slightly copied.
Toner save copy mode	Text copy mode lamp	3	Gray scale "3" is slightly copied.
	Photo copy mode lamp	1	

Note

1	Purpose	Adjustment	Adjustment						
	Function Used to adjust the coy magnification ratio (in the main scanning direction and the sub scanning direction (Purpose)								
	Section	Section							
	Item	Picture quality		····					
	Operation/	There are following three	copy magn	ification ratio adjustment modes.					
	Procedure	Adjustment mod	ie	Adjustment mode display (ON)	Note				
		Main scanning direction	Auto	Auto copy mode lamp	Automatically adjusted by the software				
			Manual	Text copy mode lamp	Automatically adjusted by the software				
		Sub scanning direction	Manual	Photo copy mode lamp	Adjustment is made by changing the				

- Select the adjustment mode with the copy picture quality mode select key.
 (The currently set copy density adjustment level is displayed on the copy quantity display.)
- 2) To change the copy magnification ratio, change the adjustment value and press the start button. (The adjustment value is stored and a copy is made at the copy magnification ratio corresponding to the value.) The adjustment value can be set in the range of 0 ~ 99.

scanning speed,

In the case of the main scanning direction copy magnification ratio adjustment (auto) mode, the adjustment is made automatically and there is no need to adjust. Without entering the adjustment value, press the start button.

There are two marks on the shading correction plate, and the distance between the two marks is read by the CCD to adjust the main scanning direction copy magnification ratio automatically. In case of the mark reading error, "- - -" is displayed on the copy quantity display.

At that time, the main scanning direction image position adjustment is also made automatically.

If, however, automatic adjustment is not made, manual adjustment must be made.

When the adjustment value is changed by "1," the copy magnification ratio is changed by 0.1%.

Note

50 - 1	Purpose	Adjustment
	Function (Purpose)	Used to adjust the copy image position o the print paper in the copy mode and to adjust the void area (image loss).
	Section	
	Item	Picture quality
	Operation/ Procedure	There are following four adjustment items. By changing the adjustment values of the items, the paper lead edge, the rear edge, image loss, and void area can be adjusted.

Adjustment item	Adjustment mode display (ON)	Note	
Image lead edge position (print start position) Auto copy mode lamp		Used to determine the relative positions of the paper and the image. The paper lead edge and the image lead edge reference position (image lead edge) are aligned. (It corresponds to the time from when the PIN detector detects the paper lead edge to when the scanner starts (printing is started).	
Image lead edge reference position (image scan start position)	Photo copy mode lamp	Used to determined the image lead edge reference position. (Used to determine the distance between the scanner home position to the document lead edge reference position.)	
Lead edge void area	Text copy mode lamp	Used to adjust the lead edge section effective image amount. The images scanned from starting the scanner to reaching the image lead edge reference position and during the time corresponding to this setting are made invalid (cut off) to make the image loss and the void area.	
Rear edge void area	Auto/Photo/Text copy mode lamp	Used to determine the cut timing of the print image (data). The PIN detector detects the paper length. The print image (data) cut timing is determined from the relationship between the calculated paper length and the sub scanning direction image length,	

 Select the adjustment mode image lead edge position (print start position) with the copy picture quality mode select key.

(The currently set adjustment value is displayed on the copy quantity display.)

2) Change the set value and press the start button.

(The adjustment value is stored and a copy is made.)

When the set value is made greater, the image lead edge position is shifted forward for the paper lead edge position.

When the set value is made smaller, the image lead edge position is shifted backward for the paper lead edge position.

Select the adjustment mode image lead edge position (image scanning start position) with the copy picture quality mode select key.

(The currently set adjustment value is displayed on the copy quantity display.)

4) Change the set value and press the start button.

When the set value is made greater, the image lead edge reference position is shifted forward.

When the set value is made smaller, the image lead edge reference position is shifted backward.

(Note) If this adjustment is not made properly, when the copy magnification ratio is changed, the copy image position varies for the paper lead edge position.

- 5) Select the adjustment mode lead edge void area with the copy picture quality mode select key. (The currently set adjustment value is displayed on the copy quantity display.)
- 6) Change the set value and press the start button.
- Select the adjustment mode rear edge void area with the copy quality mode select key.
 (The currently set adjustment mode is displayed on the copy quantity display.)
- 8) Change the set value and press the start button.

 The adjustment value can be set in the range of 0 ~ 99.

Note

50 - 10	Purpose	Adjustment

Function (Purpose)

Procedure

Used to adjust the main scanning direction print image position. (Main scanning direction void area adjustment)

Section ICU

) Collott

Item Picture quality

Operation/

1) Select the adjustment item with the copy image mode select key.

Adjustment mode	Adjustment mode display (ON)	Note
Main scanning direction image position	Photo copy mode lamp	
Main scanning direction image position (SPF mode)	Auto/Photo/Text copy mode lamp	
Left void area	Auto copy mode lamp	
Right void area	Text copy mode lamp	

2) To change the copy image position in the main scanning direction for the paper in a copy mode (to change the main scanning direction void area), change the adjustment value and press the start button. (The adjustment value is stored and a copy is made corresponding to the setting.)

The adjustment value can be set in the range of 0 ~ 99.

When the adjustment value is changed by "1," the copy image position is shifted by 0.1mm in the main scanning direction for the paper.

When the main scanning direction copy magnification ratio is adjusted with SIM 48-1 (auto mode), this adjustment is automatically performed and there is no need to enter the adjustment value with this simulation. If the adjustment is not made properly, use this simulation to make a manual adjustment. (Except for the SPF mode. In the case of the SPF mode, the adjustment with this simulation is required.)

To change the left and the right void areas, select the adjustment mode, change the adjustment value and press the start button.

(The adjustment value is stored and a copy corresponding to the setting is made.)

The adjustment value can be set in the range of 0 ~ 99.

When the adjustment value is changed by "1," the void area is changed by 0.1mm,

For the print mode, there is no need to adjust ?

The document table and print are separate?

Note

61 -3	Purpose	Operation test/check
	Function (Purpose)	Used to check the operation of the scanner (writing) section.
	Section	Laser (Exposure)
	Item	Operation
	Operation/ Procedure	While laser beams are outputted, the scanner(writing) motor rotates for 30 sec. At that time, the zoom mode display lamp lights up for 100msec every time when the laser beam sensor detects laser beam,
	Note	

63

63 - 1	Purpose	Operation data output/Check (Display/Print)
	Function (Purpose)	Used to check the result of shading correction. (The shading correction data is displayed.)
	Section	Optical (Image scanning)
	Item	Operation
	Operation/ Procedure	When the start button is pressed, the scanner unit is shifted to the shading sheet (white) position and the scanner lamp is lighted for 10 sec. During the above operation, one pixel at the center of CCD detects the white level for every second and the value is displayed on the copy quantity display in real time. The display value ranges from 0 to 255.
	Note	
63 - 2	Purpose	Operation data output/Check (Display/Print)
	Function (Purpose)	Used to check the result of shading correction (dark component). (The shading correction (dark component) data is displayed.)
	Section	Optical (Image scanning)
	Item	Operation
	Operation/ Procedure	
	Note	

64 - 1	Purpose	Operation test/check
	Function (Purpose)	Used to check the operation (self print operation) of the printer section.
	Section	Printer
	Item	Operation
	Operation/ Procedure	1) After completion of simulation, warming up is started. 2) After completion of warming up, the ready lamp is lighted. 3) Set the copy quantity.
		4) Press the start key. Print operation is made in the 1 by 2 mode (1-line print and 2-lines blank pattern) to make the set quantity of copy.
	Note	

64 -2	Purpose	Operation data output/Check (Display/Print)
	Function (Purpose)	Used to set the scanner (reading) section's operation ENABLE/DISABLE. In case of a breakdown of the scanner (reading) section, if this simulation is set to DISABLE, the machine can be used only as a printer.
	Section	Optical (Image scanning)
	Item	Operation
	Operation/ Procedure	
	Note	

-1	Purpose	Operation test/check
	Function (Purpose)	Used to check the operation of paper feed, transport, and exit (self print operation).
	Section	Printer
İ	Item	Operation
	Operation/ Procedure	 After completion of simulation, warming up is started. After completion of warming up, the ready lamp is lighted. Set the copy quantity. digit Press the start key. Copying is made to make the set quantity of copy (page memory data). If there is no data in the page memory, or if the page memory is not mounted, blank paper is discharged, in the case of 8CPM (copy mode) models, the page memory is mounted on the MCU PWB. In the case of 6CMP (copy mode) models, the page memory is not mounted.
	Note	

81

81 -0	Purpose	Setting		
	Function (Purpose)	Used to set the total cou	inter value to a desired value.	
	Section	Memory		
	Item	Counter		
	Operation/ Procedure	1) Enter the set value for (The mode is shifted 2) Enter the set value for (The mode is shifted 3) Enter the set value for After completion of enter the set value for the set va	top digit in the unit of 2 digits. or the top two digits and press the start button. to the middle two digits input mode.) or the middle two digits and press the start button. to the lower two digits input mode.) or the lower two digits and press the start button. or the lower two digits and press the start button. ntering all the digits, the set value is displayed. on indicates the input digit.	
		Setting mode	Setting mode display (ON)	Note
		Lower 2 digits	Photo copy mode lamp	
		Middle 2 digits	Text/Photo copy mode lamp	·
		Top 2 digits	Auto/Photo/Text copy mode lamp ON	

Note

83 -5	Purpose	Setting		
	Function (Purpose)	Used to set the photoco	onductor counter value to a desired value.	
	Section	Memory		
	Item	Counter		
	Operation/ Procedure	1) Enter the set value f (The mode is shifted 2) Enter the set value f (The mode is shifted 3) Enter the set value f After completion of e	e top digit in the unit of 2 digits. or the top two digits and press the start button. to the middle two digits input mode.) or the middle two digits and press the start button. to the lower two digits input mode.) or the lower two digits and press the start button. entering all the digits, the set value is displayed. mp indicates the input digit.	
		Setting mode Lower 2 digits Middle 2 digits Top 2 digits	Setting mode display (ON) Photo copy mode lamp Text/Photo copy mode lamp Auto/Photo/Text copy mode lamp ON	Note
	Note			

83 - 11	Purpose	Setting
	Function (Purpose)	Used to set the scanner (reading) counter value to a desired value.
	Section	Memory
	Item	Counter
	Operation/ Procedure	Setting is made from the top digit in the unit of 2 digits. 1) Enter the set value for the top two digits and press the start button. (The mode is shifted to the middle two digits input mode.)

- 2) Enter the set value for the middle two digits and press the start button.
- (The mode is shifted to the lower two digits input mode.)
- 3) Enter the set value for the lower two digits and press the start button. After completion of entering all the digits, the set value is displayed. The copy image mode lamp indicates the input digit.

Setting mode	Setting mode display (ON)	Note
Lower 2 digits	Photo copy mode lamp	
Middle 2 digits	Text/Photo copy mode lamp	
Top 2 digits	Auto/Photo/Text copy mode lamp ON	

84 - 1	Purpose	Data clear	
	Function (Purpose)	Used to clear the total counter.	
	Section	Memory	
	Item	Counter	
	Operation/ Procedure		
	Note		

88		
88 - 1	Purpose	Data clear
	Function (Purpose)	Used to clear all memory data (to set to the detault).
	Section	Memory
	Item	Data
	Operation/ Procedure	
	Note	

Purpose	Data clear/Setting		
Function (Purpose)	Used to clear all the count-up counters.		
Section	Memory		
Item	Counter		
Operation/ Procedure			
Note			

2. User program

A. Outline

The user program is used to realize the machine conditions according to the user's own requirements.

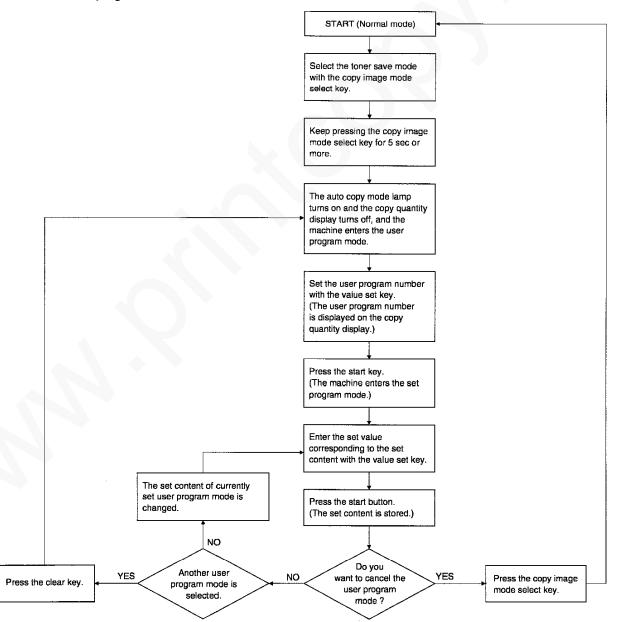
B. Operating procedure

- Select the toner save mode with the copy image mode select key. (Press the copy image mode select key.)
- 2) Keep pressing the copy image mode select key for over 5 sec. (The auto copy lamp lights up.) (The copy quantity display turns off. The photoconductor cartridge replacement lamp, the toner cartridge replacement lamp, and the paper jam lamp blink. The machine enters the user program mode.)
- Set the user program number with the value set key (digit of 10).
 (The user program number is displayed on the copy quantity display.)
- Press the start key.
 (The machine enters the program mode set in procedure 3).)
- 5) Use the value set key (digit of 1) to enter the desired set value. (The set value is displayed on the copy quantity display.)
- Press the start button.
 (The content set i procedure 5) is stored.)

After entering a user program mode, press the clear key once, and the other user program numbers are ready to be selected.

To cancel the user program mode, press the copy image mode select key.

Operation flow of user program



C. Content

Program No	Set value	Content		
1	0	OFF	Auto clear time setting	
	1	30 sec		
	2	60 sec		
	3	90 sec		
	4	120 sec		
2	0	OFF	Pre-heat mode shift time setting	
	1	45 sec		
	2	90 sec		
	3	120 sec		
	4	300 sec		
3	0	2 min	Power shut down shift time setting	
	1	5 min		
	2	15 min		
	3	30 min		
	4	60 min		
	5	120 min		
	6	OFF		
4	0	100%	Adjustment of actual copy magnification ratio at copy magnification ratio display of 100% Used to correct the copy magnification ratio.	
	1	99%		
	2	101%		
5	0	Auto	Default copy image mode setting	
	1	Character		
	2	Photo		
	3	Toner save		
6	0	LIGHT(+4)	Used to adjust the overall copy density in each of the character mode, the photo mode, and the toner save mode.	
	1	LIGHT(+3)		
	2	LIGHT(+2)		
-	3	LIGHT(+1)		
	4	CENTER		
	5	DARK(+1)		
	6	DARK(+2)		
ļ	7	DARK(+3)		
	8	DARK(+4)		
7	0	YES	Copy rear edge void area YES/NO setting	
	1	NO		
10			Desired copy magnification ratio pre-set (Only one ratio can be pre-set.)	
14	0	1 min	Setting of the shift time from OFF LINE mode to the ON LINE mode.	
	1	1.5 min		
	2	2 min		
	3	2.5 min		
	4	3 min		
	5		NE KEY to set to the ON LINE mode.)	
15	0	OFF (Fread the GIVE	Paper width detection ON/OFF setting	
	1	ON		

[9] DISASSEMBLY, ASSEMBLY, MAINTENANCE

1. List

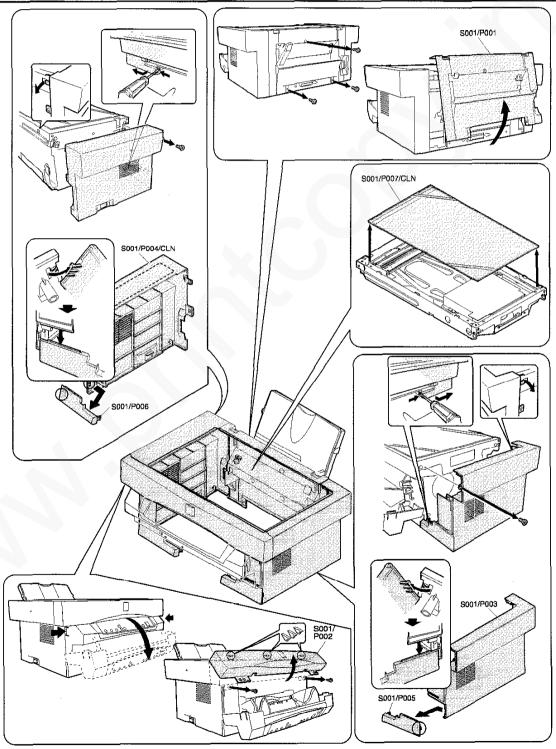
• OIL/GRE (Lubricate, grease up) CLN (Clean) ADJ (Adjust) REP (Replace, install) CHP (Change position); (Clean, replace, lubricate, grease up according to necessity.) ASS (Assemble, disassemble)

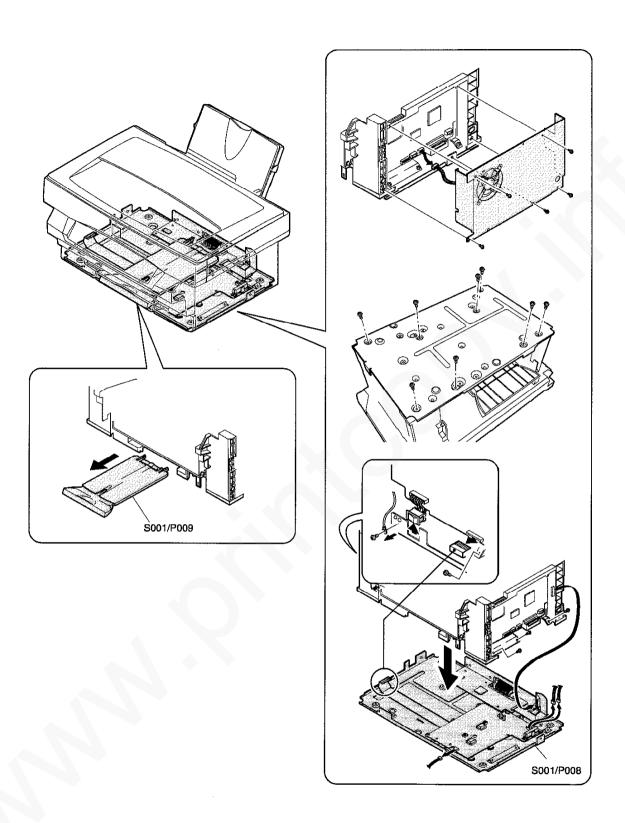
	Section	l	Uni		T	ļ	Part	JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	,,,,,
S 001	External view					P 001	Rearcabinet	ASS		
	(Cabinet/Cover)					P 002	Front upper cabinet	ASS		
					İ	P 003	Right cabinet	ASS		
						P 004	Left cabinet	ASS		
								CLN		
						P 005	Front right lower cabinet	ASS		
						P 006		ASS		
						P 007	Document table glass	ASS		
								CLN		
						P 008	Bottom base plate	ASS		
						P 009	Paper reception tray	ASS		
S 002	Operation	Ua 001	Operation unit	1		1 000	1 aper reception tray	ASS		
0 002	Opciation	02 00	Opciasonanii			P 001	Llings	1		
						_	Hinge	ASS		
						P 002	Operation control PWB	ASS		
0.000	.					P 003		ASS	 .	
S 003	Paper feed, paper					P 001	Paper width detector	ASS		
	transport					P 002	· · · · · · · · · · · · · · · · · · ·	ASS		
						P 003		ASS		
						P 004	Paper feed roller clutch spring	ASS		
								GRE	***	
						P 005	Paper feed roller	ASS		
								CLN		
			[P 006	Paper feed clutch sleeve A	ASS		
								GRE		
						P 007	Paper feed clutch sleeve B	ASS		
								GRE		-
		İ				P 008	Paper feed clutch lever	ASS		
						P 009	Paper separator	ASS		· · · · · · · · · · · · · · · · · · ·
						. 000	aperaciparator	CLN		
S 004	Scanner (reading)	Ua 001	Scanner (reading)				-	ASS	ADJ M3	
3 004	ocanner (reading)	Catori	unit			D 004	0		AD3 N3	
			arm.			P 001	Canner home position sensor	ASS		
						P 002	Scanner (copy) lamp drive PWB	ASS	ADJ M10	Adjustment is required when replace
						P 003	Scanner motor	ASS		
						P 004		GRE		
						P 005	CCD unit (CCD/lens)	ASS	ADJ M4	······
						1 000	COD unit (CODMENS)		ADS IVIA	
						P 006	Scanner rail	CLN GRE		
								-		
						P 007	Scanner shaft	ASS		<u> </u>
								GRE		·
		1		1		<u>D</u> 000	Posses drive wire		ADJ M2/M3	
						P 008	Scanner drive wire	ASS		
				Ub 001				ASS	ADJ M3	
				Ub 001	Scanner unit A	P 001	Scanner (copy) lamp	ASS ASS	ADJ M3	Adjustment is required when replace
				Ub 001		P 001	Scanner (copy) lamp	ASS ASS CLN		is required
				Ub 001				ASS ASS CLN ASS		is required
				Ub 001		P 001	Scanner (copy) lamp No. 1 mirror	ASS ASS CLN ASS CLN		is required
					A	P 001	Scanner (copy) lamp	ASS ASS CLN ASS CLN CLN		is required
				Ub 001	Scanner unit	P 001 P 002 P 003	Scanner (copy) lamp No. 1 mirror Scanner lamp light quantity sensor	ASS ASS CLN ASS CLN CLN ASS		is required
					A	P 001	Scanner (copy) lamp No. 1 mirror Scanner lamp light quantity	ASS ASS CLN ASS CLN CLN		is required
					Scanner unit	P 001 P 002 P 003	Scanner (copy) lamp No. 1 mirror Scanner lamp light quantity sensor	ASS ASS CLN ASS CLN CLN ASS		is required
					Scanner unit	P 001 P 002 P 003	Scanner (copy) lamp No. 1 mirror Scanner lamp light quantity sensor	ASS ASS CLN ASS CLN CLN ASS		is required
					Scanner unit	P 001 P 002 P 003	Scanner (copy) lamp No. 1 mirror Scanner lamp light quantity sensor No. 2 mirror	ASS ASS CLN CLN ASS CLN CLN ASS CLN ASS CLN ASS		is required
S 005	Scanner (writino)	Ua 001	Scanner (writing)		Scanner unit	P 001 P 002 P 003	Scanner (copy) lamp No. 1 mirror Scanner lamp light quantity sensor No. 2 mirror	ASS ASS CLN CLN ASS CLN CLN ASS CLN ASS CLN ASS CLN ASS		is required
S 005	Scanner (writing)	Ua 001	Scanner (writing)		Scanner unit	P 001 P 002 P 003	Scanner (copy) lamp No. 1 mirror Scanner lamp light quantity sensor No. 2 mirror	ASS ASS CLN CLN ASS CLN CLN ASS CLN ASS CLN ASS		is required

	Section	<u> </u>	Unit			ļ	Part	JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	
S 005	Scanner (writing)	Ua 001	Scanner (writing)			P 003	No. 2 cylindrical lens	CLN		
			unit			P 004	f9 mirror (No. 2 mirror)	ASS CLN		
						P 005	Scanning mirror (motor) unit	ASS		
						P 006	Laparunit	CLN		
							Laserunit	ASS		
						P 007	Laser beam sensor	ASS CLN		
						P 008	Paper feed solenoid	ASS		
						P 009	Paper empty detector	ASS		
							No. 1 cylindrical lens	CLN		
						P 011		ASS		
3 006	Image process					P 001	Toner cartridge	ASS		
						P 002		ASS		
						P 003	Developing bias electrode	ASS		
							, , ,	CLN		
				ŀ		P 004	Photoconductor earth electrode	ASS		
								CLN		
						P 005	Transfer roller	ASS		
						L		CLN		
						P 006	Transfer charger electrode	ASS		
								CLN		
						P 007	Developing bias electrode	ASS		
							spring	CLN		
						P 008	Separation electrode	ASS		
								CLN		
				ĺ		P 009	Main charger electrode SP	ASS		
								CLN		
						P 010	Earth electrode SP	ASS		
								CLN		
007	Fusing, paper exit	Ua 001	Fusing unit					ASS		
						P 001	Pressure roller	ASS		
								CLN		
						P 002	Paper guide sheet	ASS		
								CLN		
						P 003	Paper exit roller L	ASS		
								CLN		
						P 004	Paper exit roller U	ASS		
						L		CLN		
						P 005		ASS		
						1 2006	Fusing temperature sensor	ASS		
						P 007	Heat roller	CLN		
						- 00/) ICEL TOREI	ASS CLN		
						P 008	Heater lamp	ASS		
						P 009	Separation pawl	ASS		
						. 555	paramon parri	CLN		
						P 010	Temperature fuse A	ASS		
						, 010	- omportune read A	CLN		
						P 011	Temperature fuse B	ASS		
8008	Drive					P 001	Gears	ASS		
							=	GRE		
						P 002	Main motor	ASS		-
009	Electrical	Ua 001	Power source,					ASS		
			PWB unit			P 001	Power switch	ASS		
						P 002	Fuse	ASS		
		Ua 002	MCU (PCU) PWB					ASS	SET M1/M2	Adjustment
			иліт						ADJ M1/ M4 ~ 6	is required when replace
		Ua 003	ICU					ASS	10 T	anon replace
			PWB/Interface							
			PWB unit							
		Ua 004	High voltage/motor drive PWB unit					ASS		
			TIM WITH							1

S001 External view section

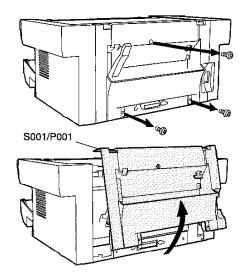
	Section		Un	iit			Part	JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	NOTE
S 001	External view					P 001	Rearcabinet	ASS		
	(Cabinet/Cover)					P 002	Front upper cabinet	ASS		
						P 003	Right cabinet	ASS		_
						P 004	Left cabinet	ASS		
								CLN	T T	
						P 005	Front right lower cabinet	ASS		
						P 006	Front left lower cabinet	ASS		
						P 007	Document table glass	ASS		
		1		1		1		CLN		
						P 008	Bottom base plate	ASS		
						P 009	Paper reception tray	ASS		





S001/P001 Rear cabinet

 Remove the screw and remove the rear cabinet (S001/P001) in the arrow direction.

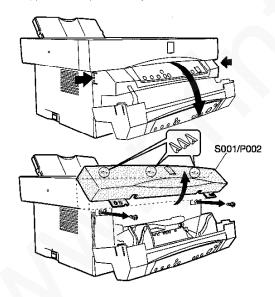


* Troubles caused by improper work

1) Paper detector malfunction

S001/P002 Front upper cabinet

 Open the operation unit and remove the screw. Remove the front upper cabinet (S001/P002) in the arrow direction.

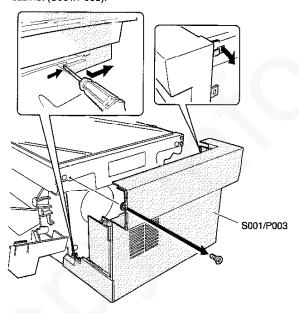


* Troubles caused by improper work

1) The operation unit cannot be closed completely.

S001/P003 Right cabinet

 Remove the screw and release the hook, then remove the right cabinet (S001/P003).

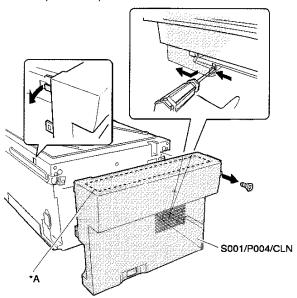


* Note

1) Be careful not to damage the right lower cabinet (S001/P005).

S001/P004 Left cabinet

 Remove the screw and release the hook, then remove the right cabinet (S001/P004).



* Cleaning

Clean the white sheet (*A) inside the left cabinet with absolute alcohol.

* After-work

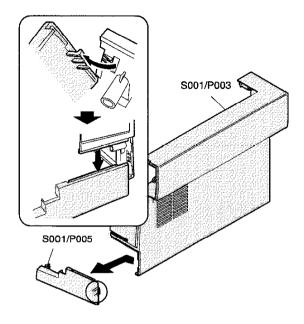
1) Copy density adjustment

* Troubles caused by improper work

1) Shading correction error (E7-05/04/12/15)

S001/P005 Front right lower cabinet

 Release the hook, and remove the front right lower cabinet (S001/P005) from the right cabinet (S001/P003).

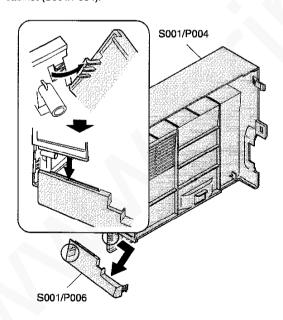


* Note

1) Be careful not to break the hook, which is fragile.

S001/P006 Front left lower cabinet

 Remove the front left lower cabinet (S001/P006) from the left cabinet (S001/P004).

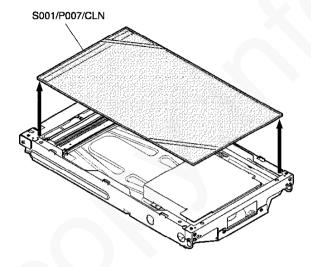


* Note

1) Be careful not to break the hook, which is fragile.

S001/P007 Document table glass

- (1) Remove the rear cabinet S001/P001
- (2) Remove the front upper cabinet S001/P002
- (3) Remove the right cabinet S001/P003.
- (4) Remove the left cabinet S001/P004.
- (5) Lift and remove the document table glass (S001/P007).

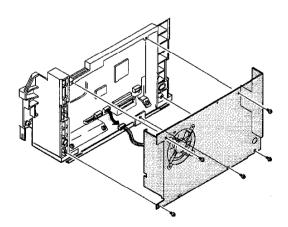


* Cleaning

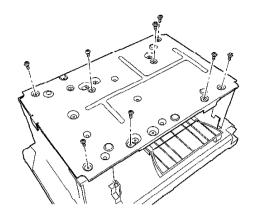
Use absolute alcohol to clean the document table glass.

S001/P008 Bottom base plate S001/P009 Paper reception tray

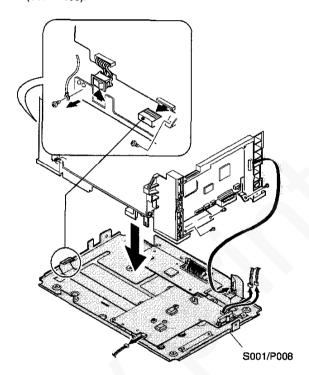
- (1) Remove the rear cabinet S001/P001.
- (2) Remove the front upper cabinet S001/P002
- (3) Remove the right cabinet S001/P003
- (4) Remove the left cabinet S001/P004.
- (5) Remove the screw connector and remove the fan motor unit.

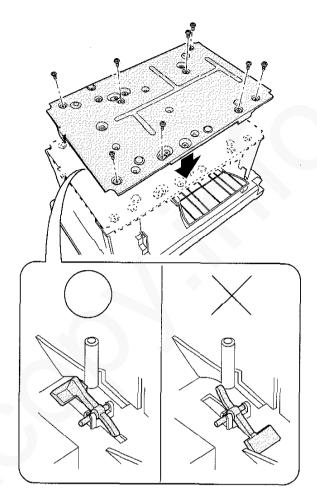


(6) Reverse the machine and remove the screw.

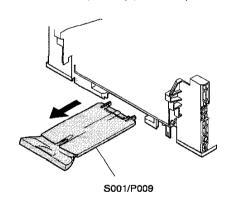


(7) Remove the connector earth and remove the bottom base plate (S001/P008).





(8) Pull out the paper reception tray (S001/P009).



* Troubles caused by improper work

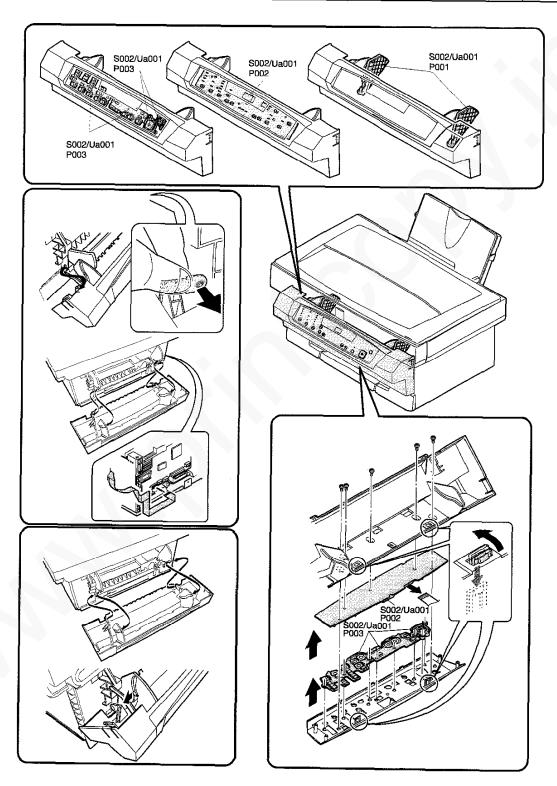
Paper entry detector malfunction

* Note

Be careful not to mistake the installing direction of the paper entry detector when installing.

S002 Operation section

	Section		Ur	nit			Part	JOB	After-work	
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	NOTE
S 002	Operation	Ua 001	Operation unit					ASS		
						P 001	Hinge	ASS		
						P 002	Operation control PWB	ASS		
						P 003	Key top	ASS		

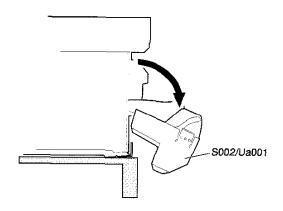


S002/P001 Hinge

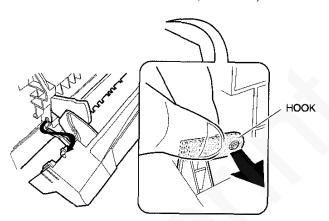
S002/P002 OperKtion control PWB

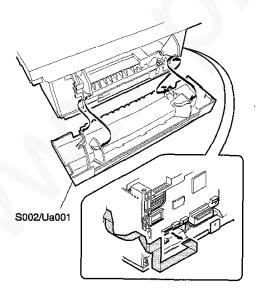
S002/P003 Key top

- (1) Remove the right cabinet S001/P003
- (2) Remove the screw and remove the fan motor unit S010/P001
- (3) Open the operation unit (S002/Ua001).

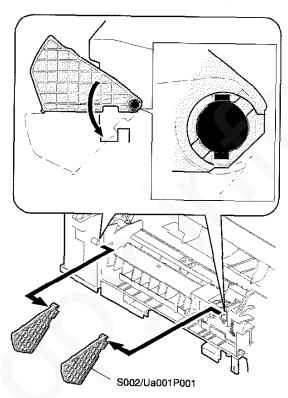


(4) Remove the connector of the right cabinet side, remove the hook, and remove the operation unit (S002/Ua001).



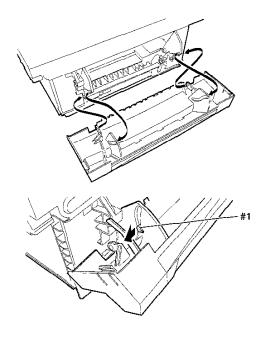


(5) Fit the hinge (S002/Ua001/P001) lock hole and pull it out.

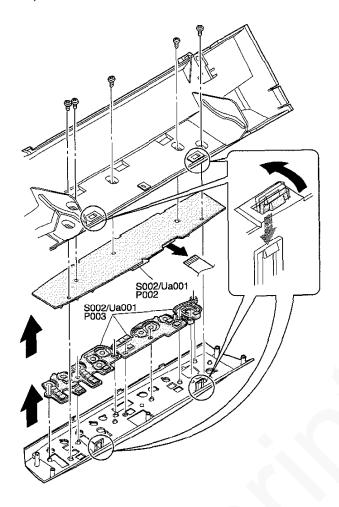


* Note for assembly

#1. After installing the hook to the operation unit, bring the stopper section to the center of the long hole and push it in the arrow direction



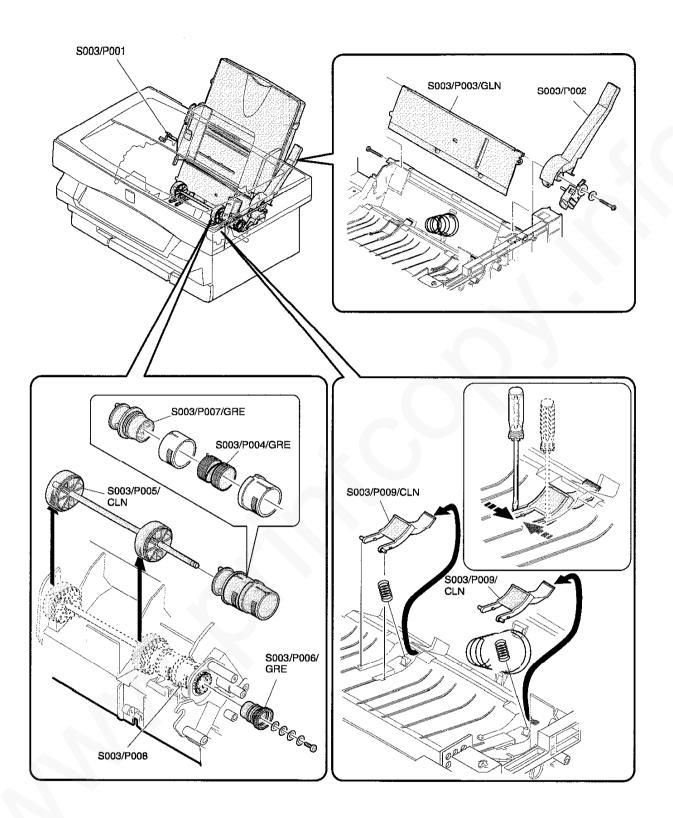
(6) Remove the screw, remove the connector, and remove the operation control PWB (S002/Ua001/P002) and the key top (S002/Ua001/P003).



- 1) Key operation trouble
- 2) Display trouble

S003 Paper feed, paper transport section

	Section		Ur	iit			Part	JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	NOTE
\$ 003	Paper feed, paper					P 001	Paper width detector	ASS		
	transport					P 002	Paper set lever	ASS		
						P 003	Paper pressure plate	ASS		
						P 004	Paper feed roller clutch spring	ASS		
							GRE			
						P 005	Paper feed roller	ASS		
								CLN		
				1 1		P 006	Paper feed clutch sleeve A	ASS		
							·	GRE		
						P 007	Paper feed clutch sleeve B	ASS		
								GRE		
						P 008	Paper feed clutch lever	ASS		
						P 009	Paper separator	ASS		
								CLN		

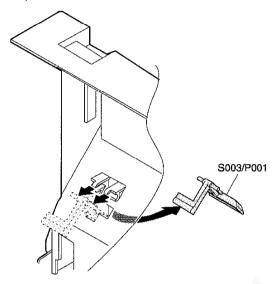


S003/P001 Paper width detector

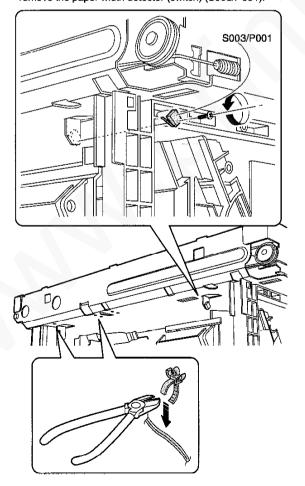
S003/P002 Paper set lever

S003/P003 Paper pressure plate

- (1) Remove the rear cabinet S001/P001
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the left cabinet S001/P004
- (4) Pull and remove the paper width detector (actuator) (S003/ P001) on one side from the back of the rear cabinet.

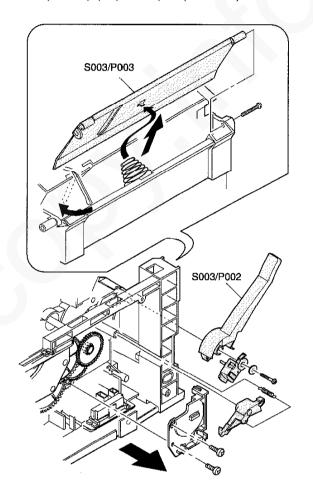


(5) Cut the binding band, remove the connector and the screw, and remove the paper width detector (switch) (S003/P001).



* Troubles caused by improper work

- 1) Right/left void areas defective
- 2) Image position detective
- Transfer roller dirt
 (Copy dirt)
 (Paper jam)
- (6) Remove the right cabinet S001/P003.
- (7) Remove the screw, and remove the paper set lever (S003/ P002)and the paper pressure plate (S003/P003).



- 1) Mis-feed
- 2) Paper jam
- 3) Paper skew

S003/P004 Paper feed roller clutch spring

S003/P005 Paper feed roller

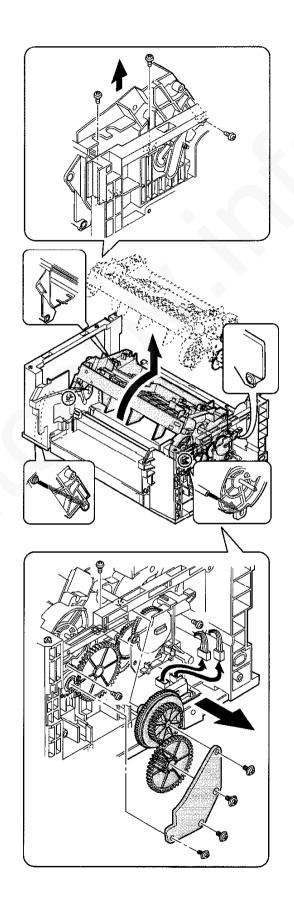
S003/P006 Paper feed clutch sleeve A

S003/P007 Paper feed clutch sleeve B

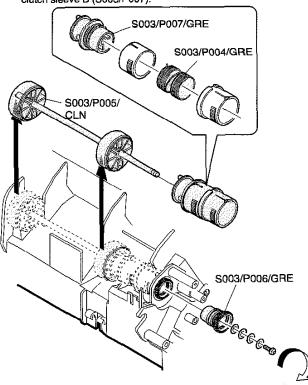
S003/P008 Paper feed clutch lever

S003/P009 Paper separator

- (1) Remove the rear cabinet S001/P001.
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the right cabinet S001/P003.
- (4) Remove the left cabinet S001/P004.
- (5) Remove the document table glass S001/P007.
- (6) Remove the fan motor unit S010/P001.
- (7) Remove the MCU (PCU) PWB unit S009/Ua002.
- (8) Remove the power PWB unit S009/Ua001.
- (9) Remove the scanner unit S004/Ua001.
- (10) Remove the screw, the gear, and the hook, and remove the upper frame (Scanner (writing) unit) unit.



(11) Remove the counter-screw, and remove the paper feed roller clutch spring (S003/P004), the paper feed roller (S003/P005), the paper feed clutch sleeve A (S003/P006), and the paper feed clutch sleeve B (S003/P007).



* Cleaning

Use absolute alcohol to clean the paper feed roller.

* Grease

Apply grease to the inside of the paper feed roller clutch spring, and to the surface of the paper feed clutch sleeve A and the paper feed clutch sleeve B.

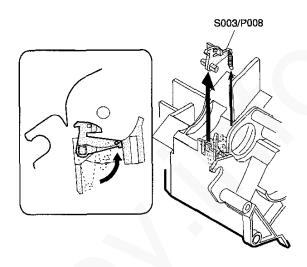
* Note for assembly

Be careful to the installing direction of each part. Be sure to set the rear edge of the paper feed roller clutch spring to the notch section of the paper feed clutch sleeves A/B.

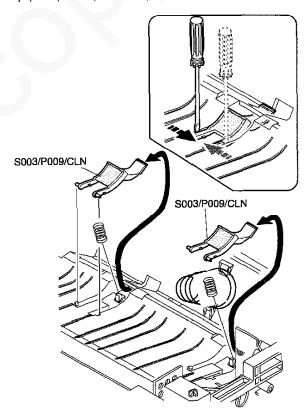
* Troubles caused by improper work

- 1) Mis-feed, paper jam
- 2) Paper skew

- (12) Remove the No. mirror (f0 mirror) S005/Ua001/P004.
- (13) Remove the paper feed solenoid S005/Ua001/P010.
- (14) Remove the paper feed clutch lever (S003/P008).



(15) As shown in the figure below, use a screwdriver to remove the paper separator (S003/P009).



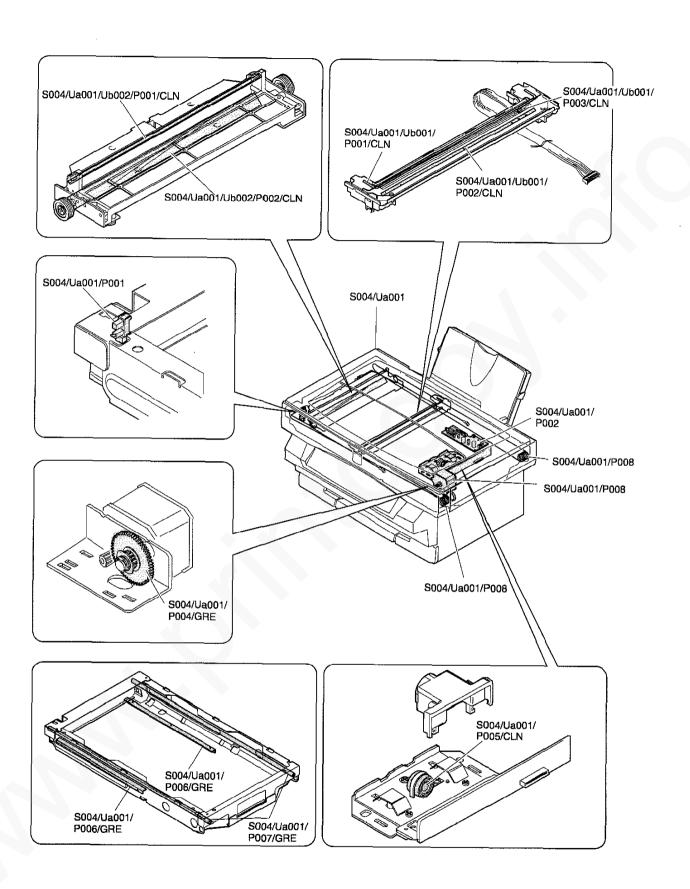
* Cleaning

Use absolute alcohol to clean the paper separator.

- 1) Mis-feed, paper jam
- 2) Paper skew

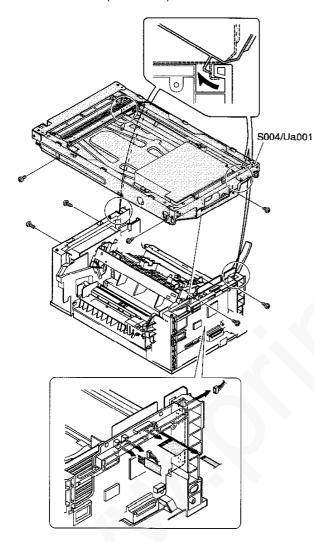
S004 Scanner (Reading) section

S No. Part name			Unit				Part	JOB	After-work	NOTE	
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	NOIE	
S 004	Scanner (reading)	Ua 001	Scanner (reading)					ASS	ADJ M3		
			unit			P 001	Canner home position sensor	ASS			
						P 002	Scanner (copy) lamp drive PWB	ASS	ADJ M10	Adjustment is required when replace	
						P 003	Scanner motor	ASS			
						P 004	Scanner motor gear	GRE			
						P 005	CCD unit (CCD/iens)	ASS	ADJ M4		
								CLN			
						P 006	Scanner rail	GRE			
						P 007	Scanner shaft	ASS			
								GRE			
				L		P 008	Scanner drive wire	ASS	ADJ M2/M3		
				Ub 001	Scanner unit			ASS	ADJ M3		
					A	P 001	Scanner (сору) lamp	ASS	ADJ M10	Adjustment is required when replace	
								CLN			
		İ				P 002	No. 1 mirror	ASS			
								CLN			
						P 003	Scanner lamp light quantity sensor	CLN			
				Ub 002	Scanner unit			ASS			
				В	В	В	P 001	No. 2 mirror	ASS		
								CLN			
						P 002	No. 3 mirror	ASS			
			İ					CLN			

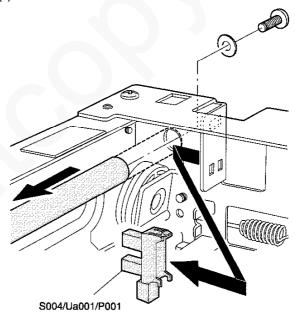


S004/Ua001 Scanner unit

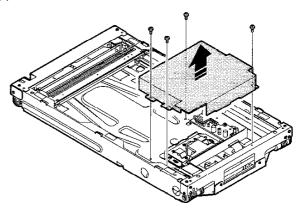
- (1) Remove the rear cabinet S001/P001.
- (2) Remove the front upper cabinet S001/P002
- (3) Remove the right cabinet S001/P003.
- (4) Remove the left cabinet S001/P004
- (5) Remove the document table glass S001/P007
- (6) Remove the fan motor unit S010/P001 ...
- (7) Remove the screw, the connector, and the hook, and remove the scanner unit (S004/Ua001).



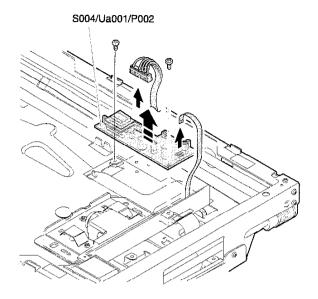
- S004/Ua001/P001 Scanner home positions sensor
- S004/Ua001/P002 Scanner (copy) lamp drive PWB
- S004/Ua001/P003 Scanner motor
- S004/Ua001/P004 Scanner motor gear
- S004/Ua001/P005 CCD unit
- S004/Ua001/P006 Scanner rail
- S004/Ua001/P007 Scanner shaft
- S004/Ua001/P008 Scanner drive wire
- (1) Remove the rear cabinet S001/P001
- (2) Remove the front upper cabinet S001/P002
- (3) Remove the right cabinet S001/P003.
- (4) Remove the left cabinet S001/P004
- (5) Remove the document table glass S001/P007.
- (6) Remove the fan motor unit S010/P001.
- (7) Remove the screw and remove the scanner shaft.



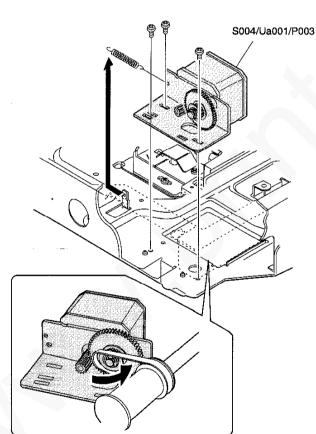
- (8) Release the hook, cut the binding band, and remove the scanner home position sensor (S004/Ua001/P001).
- * Troubles caused by improper work
 - 1) L1-00 trouble
 - 2) L3-00 trouble
- (9) Remove the screw and remove the dark box cover.



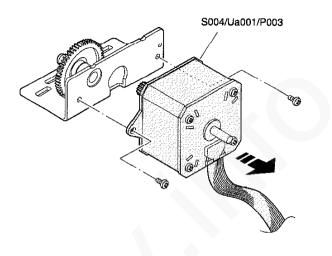
(10) Remove the screw and the connector, and remove the scanner lamp drive PWB. (S004/Ua001/P002).



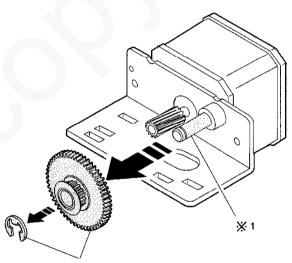
(11) Remove the screw, the spring, and the belt, and remove the scanner motor unit.



(12) Remove the screw and remove the scanner motor (S004/ Ua001/P003).



(13) Remove the E-ring, and remove the scanner motor gear (S004/ Ua001/P004).



S004/Ua001/P004/GRE

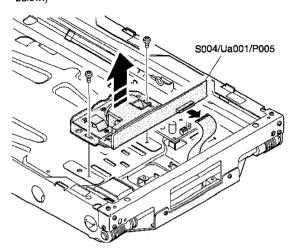
* Grease

Apply grease to #1 position.

- * Troubles caused by improper work
 - 1) L1-00 trouble
 - 2) L3-00 trouble
 - 3) Image deflection

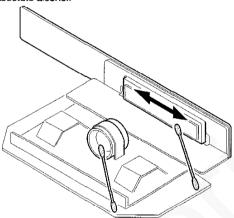
(14) Remove the screw and the connector, and remove the CCD unit (S004/Ua001/P005).

(Never remove the other screws than the two screws shown below.)



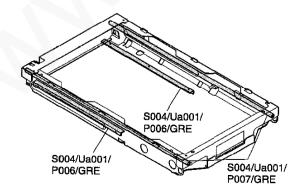
* Cleaning

Remove the protection cover, and clean the CCD and the lens with absolute alcohol.



* Troubles caused by improper work

- 1) E7-04 trouble
- 2) E7-05 trouble
- 3) E7-12 trouble
- 4) Copy image defect (Improper focusing) (Distortion)
 (Streaks in the sub scanning direction)
- (15) Remove the screw, and remove the scanner shaft (S004/Ua001/ P007).



* Grease

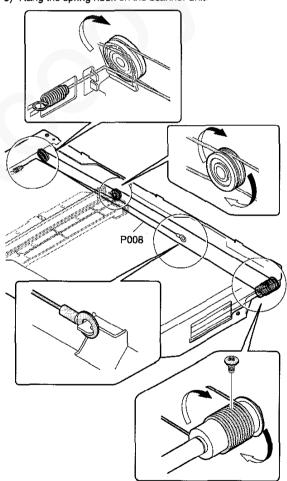
Apply grease to the scanner rail (S004/Ua001/P006).

* Troubles caused by improper work

- Copy image defect (Image deflection)
- (16) Remove the scanner drive wire (S004/Ua001/P008).

* Assembly procedure

- Hang the scanner drive wire fixing metal on the scanner unit hook
- 2) Pass the wire through the outside grove of the double pulley of the scanner unit B.
- 3) Hold the winding pulley groove upside, wind the wire 11 turns. Insert the 9th turn of wire into the winding pulley groove and fix it with the screw.
- Wind the wire over the pulley through under the scanner unit
 B.
- 5) Pass the wire through the inside groove of the double pulley of the scenner unit B
- 6) Hang the spring hook on the scanner unit.



* Note for assembly

The wire on the front frame side is different from that on the rear frame side. Be careful not to mistake the wire colors.

- 1) L1-00 trouble
- 2) L3-00 trouble
- Copy image defect (Distortion) (Image deflection)

S004/Ua001/Ub001 Scanner unit A

S004/Ua001/Ub001/P001 Scanner lamp

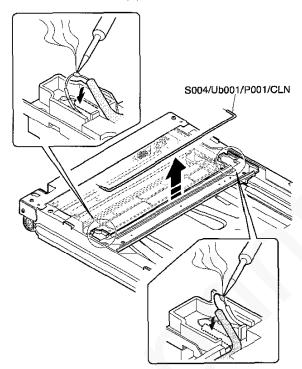
S004/Ua001/Ub001/P002

No. 1 mirror

S004/Ua001/Ub001/P003

Scanner lamp light quantity sensor

- (1) Remove the rear cabinet S001/P001
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the right cabinet S001/P003.
- (4) Remove the left cabinet S001/P004
- (5) Remove the document table glass S001/P007
- (6) Remove the fan motor unit. S010/P001.
- (7) Remove the lamp cover, lift the scanner lamp diagonally, and remove the scanner lamp (S004/Ua001/Ub001/P001).



* Cleaning

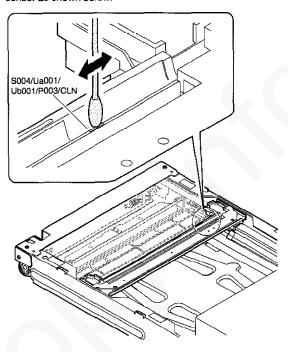
Use absolute alcohol to clean the scanner lamp.

* Troubles caused by improper work

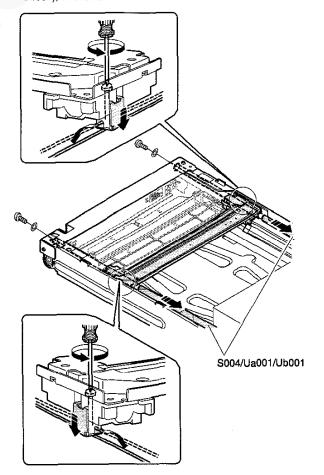
 Copy image defect (Streaks in the sub scanning direction) (Uneven density)

* Cleaning

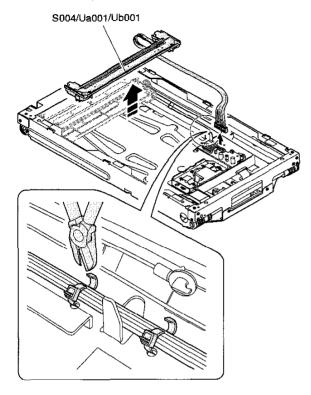
Use absolute alcohol to clean the scanner lamp light quantity sensor as shown below.



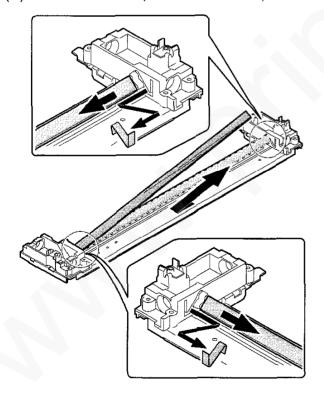
- 1) Improper copy density
- (8) Loosen the wire fixing screw of the scanner unit A (S004/Ua001/ Ub001), and remove the wire.



- (9) Remove the screw, and remove the shaft.
- (10) Remove the connector, cut the binding band, and remove the scanner unit A (S004/Ua001/Ub001).

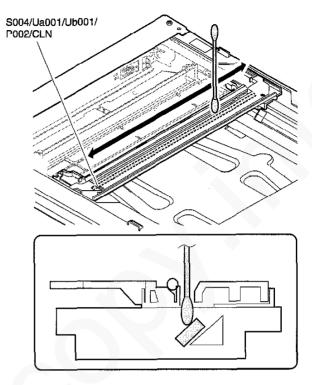


(11) Remove the No. 1 mirror (S004/Ua001/Ub001/P002).



* Cleaning

Use absolute alcohol to clean the No. 1 mirror as shown below.



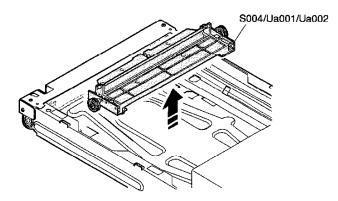
* Troubles caused by improper work

- Copy image defect
 (Distortion)
 (Streaks in the sub scanning direction)
 (Uneven density)
- 2) L1-00 trouble
- 3) L3-00 trouble

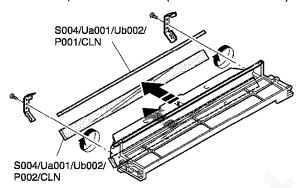
S004/Ua001/Ub002 Scanner unit B S004/Ua001/Ub002/P001 No. 2 mirror S004/Ua001/Ub002/P002 No. 3 mirror

- (1) Remove the rear cabinet S001/P001.
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the right cabinet S001/P003.
- (4) Remove the left cabinet S001/P004.
- (5) Remove the document table glass S001/P007.
- (6) Remove the fan motor unit. S010/P001
- (7) Remove the scanner drive wire S004/Ua001/P008.

(8) Remove the scanner unit B (S004/Ua001/Ub002).

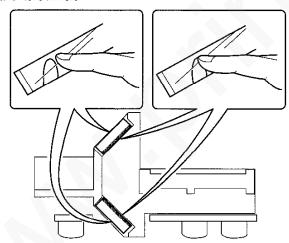


(9) Remove the screw, and remove the No. 2 mirror (S004/Ua001/ Ub002/P001) and the No. 3 mirror (S004/Ua001/Ub002/P002).



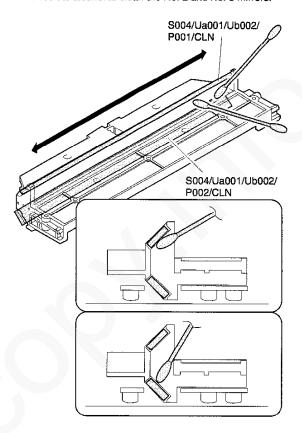
* Note for assembly

Be careful not to mistake the front and the back sides of the no. 2 and No. 3 mirrors.



* Cleaning

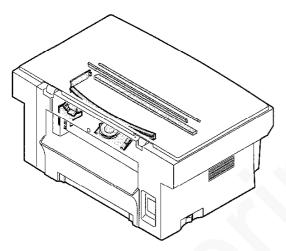
Use absolute alcohol to clean the No. 2 and No. 3 mirrors.

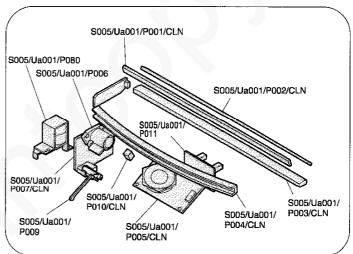


- Copy image defect (Distortion)
 (Streaks in the sub scanning direction)
 (Uneven density)
- 2) L1-00 trouble
- 3) L3-00 trouble

S005 Scanner (writing) section

	Section		Unit			i	Part	JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	NOTE
S 005	Scanner (writing)	Ua 001	Scanner (writing)		-			ASS		
			unit			P 001	No. 1 mirror	CLN		
						P 002	No. 3 mirror	CLN		
						P 003	No. 2 cylindrical lens	CLN		
						P 004	f0 mirror (No. 2 mirror)	ASS		
								CLN		
						P 005	Scanning mirror (motor) unit	ASS	·	
								CLN		
						P 006	Laser unit	ASS		
						P 007	Laser beam sensor	ASS		
								CLN		
						P 008	Paper feed solenoid	ASS		
						P 009	Paper empty detector	ASS		
						P 010	No. 1 cylindrical tens	CLN		
						P 011	Toner empty sensor	ASS		•





S005/Ua001 Scanner unit

S005/Ua001/P001 No. 1 mirror

S005/Ua001/P002 No. 3 mirror

S005/Ua001/P003 No. 2 cylindrical lens

S005/Ua001/P004 No. 2 mirror (f0 mirror)

S005/Ua001/P005 Scanning mirror (motor) unit

S005/Ua001/P006 Laser unit

S005/Ua001/P007 Laser beam sensor PWB

S005/Ua001/P008 Paper feed solenoid

S005/Ua001/P009 Paper empty detector

S005/Ua001/P010 No. 1 cylindrical lens

S005/Ua001/P011 Toner empty sensor

(1) Remove the rear cabinet S001/P001.

(2) Remove the front upper cabinet S001/P002

(3) Remove the right cabinet S001/P003.

(4) Remove the left cabinet S001/P004

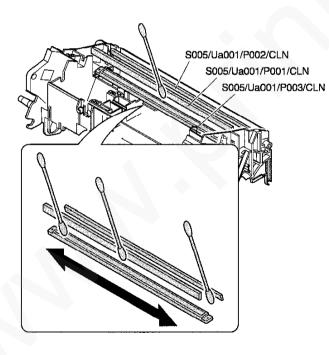
(5) Remove the document table glass S001/P007.

(6) Remove the fan motor unit S010/P001

(7) Remove the scanner unit (reading) S004/Ua001

* Cleaning

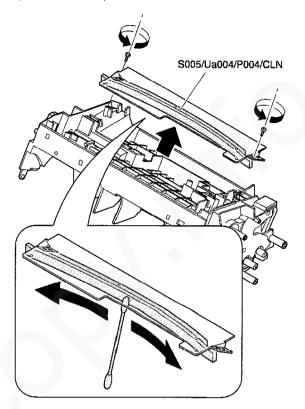
Use absolute alcohol to clean the No. 1 mirror (S005/Ua001/P001), No. 3 mirror (S005/Ua001/P002), and No. 2 cylindrical lens (S005/Ua001/P003).



* Note

Do not remove those mirrors.

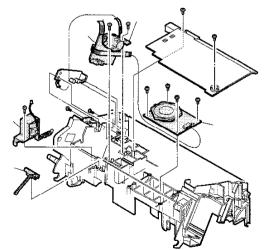
(8) Remove the screw, and remove the no. 2 mirror (fθ mirror) (S005/Ua001/P004).



* Cleaning

Use absolute alcohol to clean the concave surface of the no. 2 mirror (f6 mirror).

- (9) Remove the scanner cover.
- (10) Remove the screw and the connector, and remove the scanner mirror (motor) unit (S005/Ua001/P005).

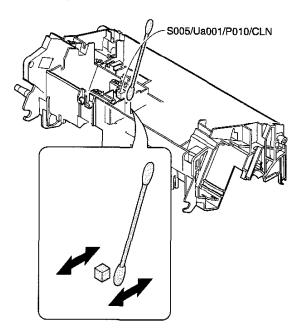


- (11) Remove the screw, and remove the laser unit (S005/Ua001/
- (12) Remove the connector, and remove the laser beam sensor PWB (S005/Ua001/P007).

- (13) Remove the screw and the spring, and remove the paper feed solenoid (S005/Ua001/P080).
- (14) After removing the laser beam sensor PWB, remove the paper empty detector (S005/Ua001/P009) along the boss direction.

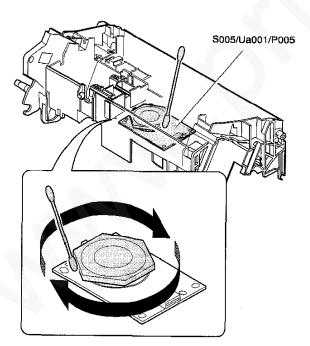
* Cleaning

Use absolute alcohol to clean the No. 1 cylindrical lens (S005/ Ua001/P010).

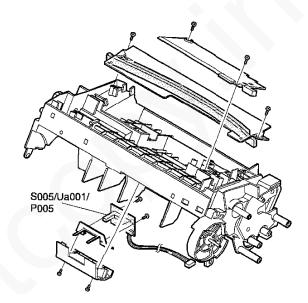


Use absolute alcohol to clean the scanner mirror (motor) unit, and the laser beam sensor.

Clean the whole surface of the scanner mirror (motor) unit as shown in the figure below.

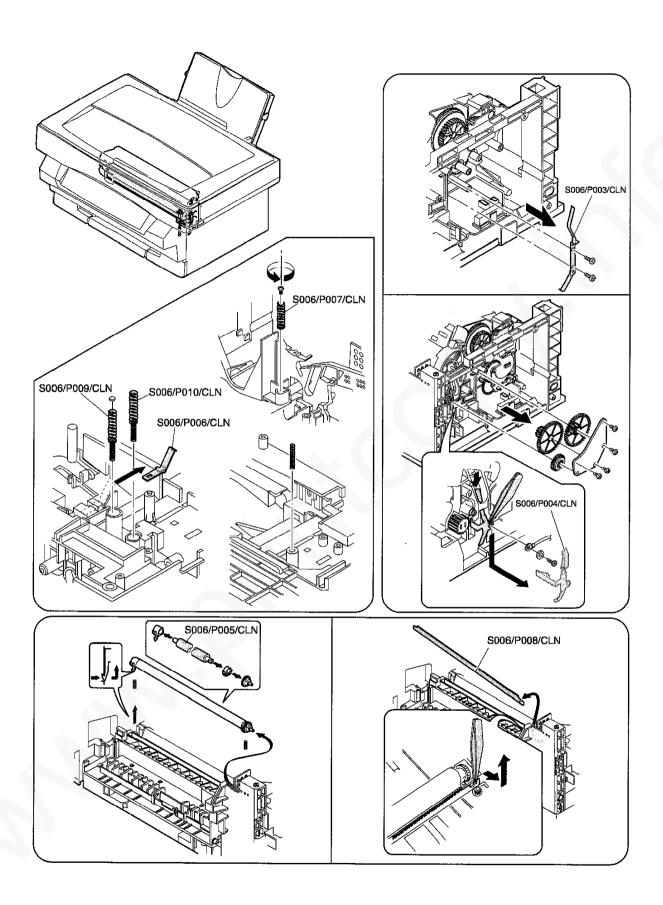


- 1) Print image defect (Insufficient print density) (Streaks in the main scanning direction) (Image lack) (E7-03 error)
- (15) Remove the MCU (PCU) PWB S009/Ua002.
- (16) Remove the power PWB unit. S009/Ua001
- (17) Remove the scanner (writing) unit. S005/Ua001
- (18) Remove the screw and the connector, and remove the toner empty sensor (S005/Ua001/P011).



S006 Image process section

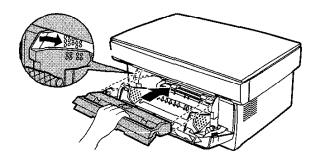
	Section		Uni	t		-	Part	JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	ROTE
S 006	Image process					P 001	Toner cartridge	ASS		
						P 002	Photoconductor cartridge	ASS		
						P 003	Developing bias electrode	ASS		
								CLN		
						P 004	Photoconductor earth electrode	ASS		
								CLN		
						P 005	Transfer roller	ASS		
								CLN		
						P 006 Transfer charger electrode	Transfer charger electrode	ASS		
								CLN		
						P 007	Developing bias electrode	ASS		
							spring	CLN		
						P 008	Separation electrode	ASS		
							4	CLN		
						P 009	Main charger electrode SP	ASS		
	Ì	1 1						CLN		-
						P 010	Earth electrode SP	ASS		
								CLN		



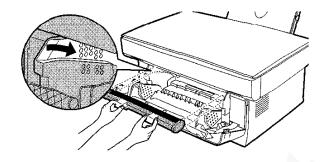
S006/P001 Toner cartridge

S006/P002 Photoconductor cartridge

- (1) Open the operation unit.
- (2) Remove the toner cartridge (S006/P001).



(3) Remove the photoconductor cartridge (S006/P002).



S006/P003 Developing bias electrode

S006/P004 Photoconductor earth electrode

S006/P005 Transfer roller

S006/P006 Transfer charger electrode

S006/P007 Developing bias electrode SP

S006/P008 Separation electrode

S006/P009 Main charger electrode SP

S006/P010 Earth electrode SP

(1) Remove the rear cabinet S001/P001

(2) Remove the front upper cabinet S001/P002.

(3) Remove the right cabinet S001/P003.

(4) Remove the left cabinet S001/P004

(5) Remove the fan motor unit S010/P001

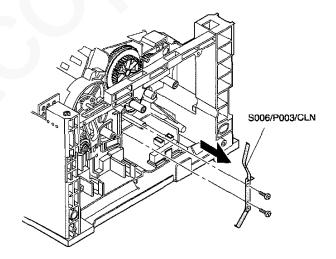
(6) Remove the document table glass S001/P007

(7) Remove the MCU (PCU) PWB unit S009/Ua002.

(8) Remove the power PWB unit S009/Ua001.

(9) Remove the scanner (reading) unit S004/Ua001.

(10) Remove the gear and the screw, and remove the developing bias electrode (S006/P003).

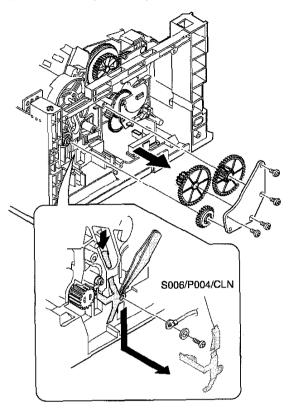


* Cleaning

Use absolute alcohol to clean the developing bias electrode.

- Print image trouble (Insufficient density, streaks in the main scanning direction)
- 2) Toner dispersion

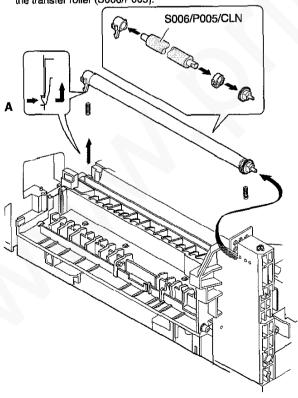
(11) Remove the gear and the screw, and remove the photoconductor earth electrode (S006/P004).



* Cleaning

Use absolute alcohol to clean the photoconductor earth electrode.

(12) Release the hook from the section A in the figure, and remove the transfer roller (S006/P005).

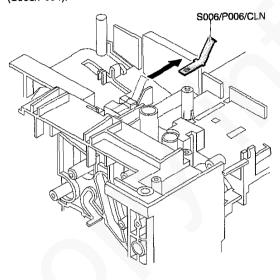


* Cleaning

Use absolute alcohol to clean the transfer roller.

* Troubles caused by improper work

- 1) Print image detect (Insufficient density, improper density balance, streaks in the main scanning direction)
- (13) Release the hook, and remove the transfer charger electrode (S006/P004).

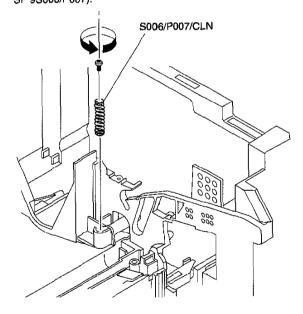


* Cleaning

Use absolute alcohol to clean the charger electrode.

* Troubles caused by improper work

- Print image detect (Insufficient density, improper density balance, streaks in the main scanning direction)
- (14) Remove the screw, and remove the developing bias electrode SP 9S006/P007).

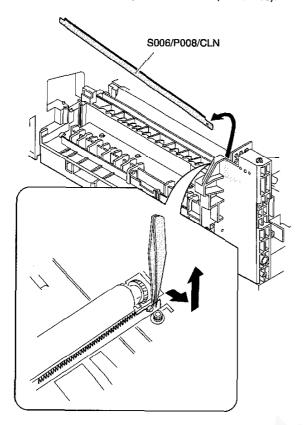


* Cleaning

Use absolute alcohol to clean the developing bias electrode SP.

- Print image defect (Insufficient density, streaks in the main scanning direction.)
- 2) Toner dispersion

(15) Slide and remove the separation electrode (S006/P008).

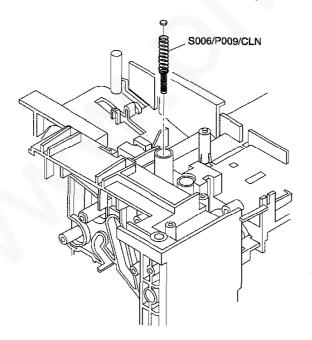


* Cleaning

Use absolute alcohol to clean the separation electrode.

* Troubles caused by improper work

- 1) Paper jam
- (16) Remove the bottom base plate S001/P009.
- (17) Pull out the main charger electrode SP (S006/P008).

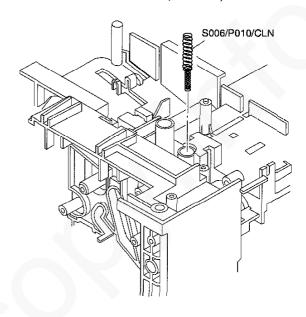


* Cleaning

Use absolute alcohol to clean the main charger electrode SP.

* Troubles caused by improper work

- Print image defect
 (Dirt, streaks in the main scanning direction)
- (18) Pull out the earth electrode SP (S006/P010).



* Cleaning

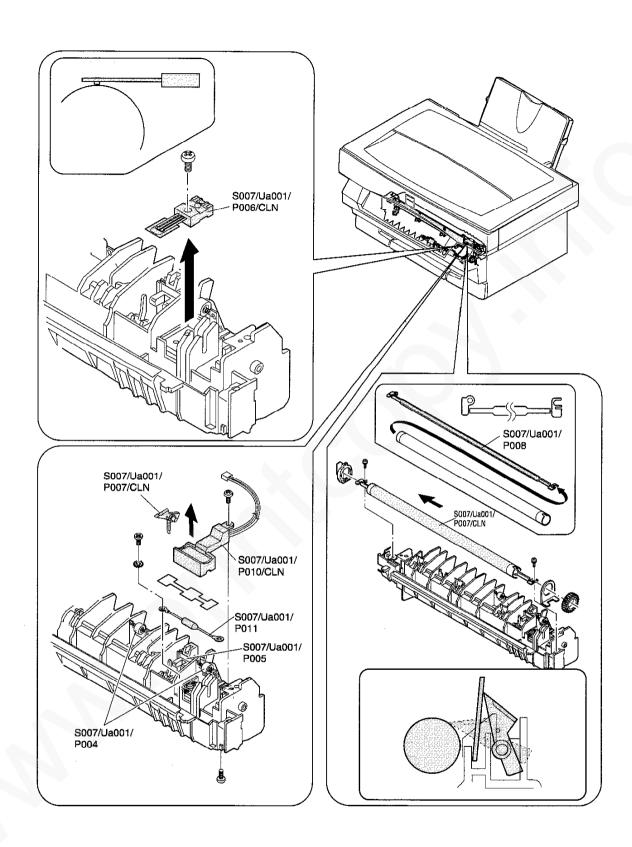
Use absolute alcohol to clean the earth electrode SP.

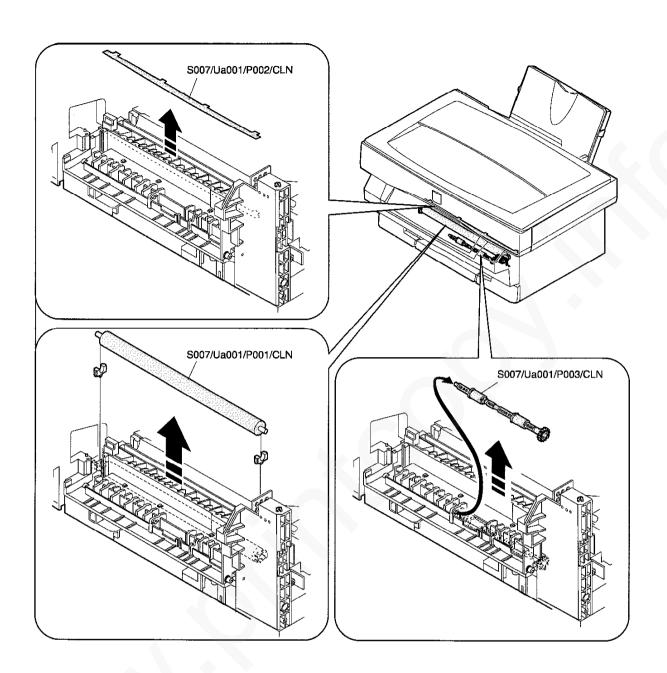
* Troubles caused by improper work

1) Paper jam

S007 Fusing, paper exit

	Section		Un	it			Part	JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	NOIE
S 007	Fusing, paper exit	Ua 001	Fusing unit					ASS		
						P 001	Pressure roller	ASS	·	
					P 002 Pape		CLN			
						P 002	Paper guide sheet	ASS		
								CLN		
			P 003 Paper exit	Paper exit roller L	ASS					
						İ		CLN		
						P 004	Paper exit roller U	ASS		
								CLN		
						P 005	Paper exit detector	ASS		
						P 006 Fusing temperature sensor	ASS			
								CLN		
						P 007	Heat roller	ASS		
								CLN		
						P 008	Heater lamp	ASS		
						P 009	Separation pawl	ASS		
								CLN		
		}				P 010	Temperature fuse A	ASS		
								CLN		
						P 011	Temperature fuse B	ASS		





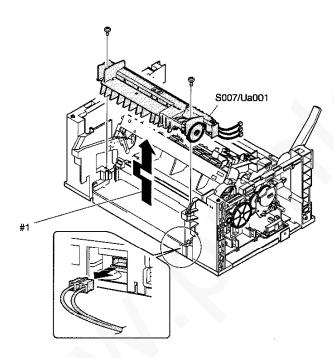
S007/Ua001 Fusing unit

S007/Ua001/P001 Pressure roller

S007/Ua001/P002 Paper guide sheet

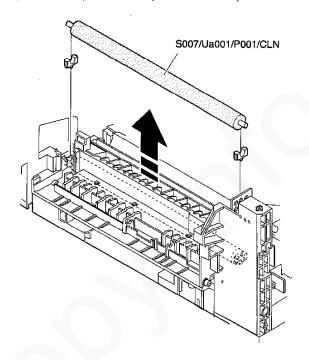
S007/Ua001/P003 Paper exit roller U

- (1) Remove the rear cabinet S001/P001
- (2) Remove the front upper cabinet \$001/P002.
- (3) Remove the right cabinet S001/P003
- (4) Remove the left cabinet S001/P004.
- (5) Remove the document table glass S001/P007.
- (6) Remove the fan motor unit S010/P001.
- (7) Remove the operation unit S002/P001, S002/P002, S002/P003.
- (8) Remove the scanner unit S004/Ua001.
- (9) Remove the MCu (PCU) PWB unit S009/Ua002 .
- (10) Remove the toner cartridge and the photoconductor cartridge S006/P001, S006/P002.
- (11) Remove the connector screw, and remove the fusing unit (S007/ Ua001).



- #1. Slide to the left and lift and remove.
- * Troubles caused by improper work
 - 1) Fusing abnormality
 - 2) Paper jam

(12) Remove the pressure roller (S007/Ua001/P001).

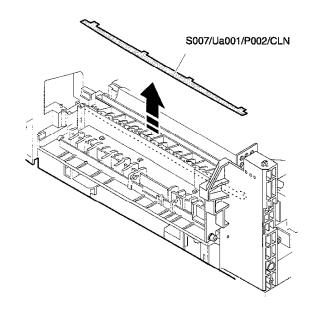


* Cleaning

Use the absolute alcohol to clean the pressure roller.

* Troubles caused by improper work

- 1) Print dirt
- 2) Paper jam
- 3) Fusing abnormality
- (13) Remove the paper guise sheet (S007/Ua001/P002).



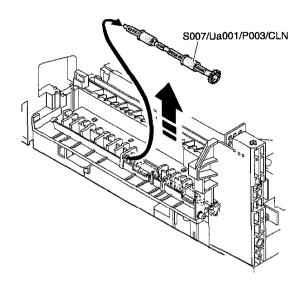
* Cleaning

Use the absolute alcohol to clean the paper guide sheet.

* Troubles caused by improper work

1) Paper jam

(14) Remove the paper exit roller L (S007/Ua001/P003).



* Cleaning

Use absolute alcohol to clean the paper exit roller L.

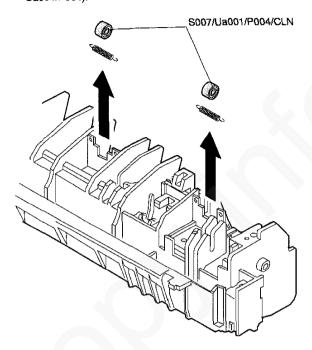
* Troubles caused by improper work

1) Paper jam

* Note

S007/Ua001/P004 Paper exit roller U S007/Ua001/P005 Paper exit detector S007/Ua001/P006 Fusing temperature sensor S007/Ua001/P007 Heat roller S007/Ua001/P008 Heater lamp S007/Ua001/P009 Separation pawl S007/Ua001/P010 Temperature fuse A S007/Ua001/P011 Temperature fuse B

 Remove the spring, and remove the paper exit roller U (S007/ Ua001/P004).

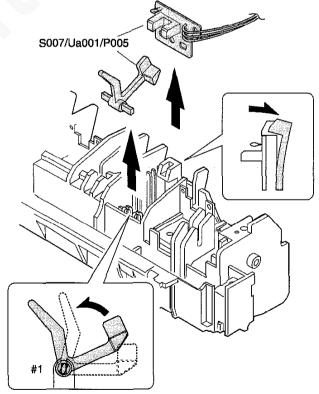


* Cleaning

Use absolute alcohol to clean the paper exit roller U.

* Troubles caused by improper work

- 1) paper jam
- (2) Remove the paper exit detector (S007/Ua001/P005).

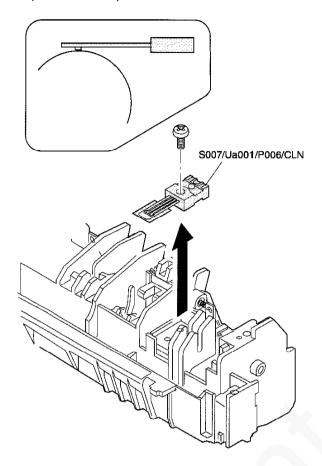


#1. Fit the boss direction and remove.

* Troubles caused by improper work

1) Paper jam

(3) Remove the screw, and remove the fusing temperature sensor (S007/Ua001/P006).



* Note for assembly

Be careful not to mistake the installing direction of the fusing temperature sensor.

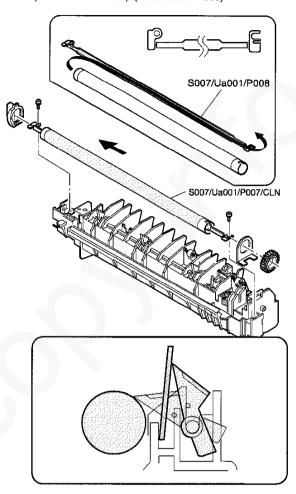
* Cleaning

Use absolute alcohol to clean the contact surface of the heat roller.

* Troubles caused by improper work

- 1) Fusing abnormality
- 2) Fusing temperature error (H2-00, H3-00, H4-00)

(4) Remove the screw, and remove the heat roller (S007/Ua001/ P007) and the heater lamp (S007/Ua001/P008).



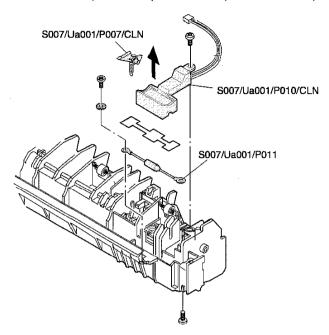
* Note for assembly

Insert a piece of paper between the separation pawl and the heat roller to keep the separation pawl open in order to protect the heat roller from damage.

* Cleaning

Use absolute alcohol to clean the separation pawl.

- (5) Remove the separation pawl (S007/Ua001/P009).
- (6) Remove the screw, and remove the temperature fuse A (S007/ Ua001/P010) and the temperature fuse B (S007/Ua001/P011).



* Cleaning

Use absolute alcohol to clean the contact section of the temperature fuse A which is in contact with the heat roller.

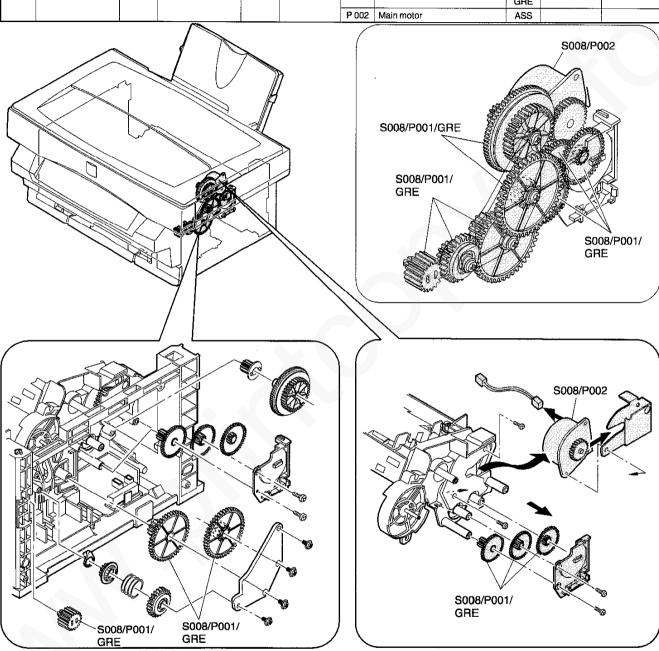
Use absolute alcohol to clean the separation pawl.

* Troubles caused by improper work

1) paper jam

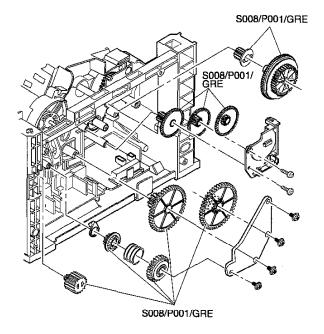
S008 Drive section

Section			Unit				Part	JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No.	Part name	CODE	JOB No.	NOTE
S 008	Drive					P 001 Gcars		ASS		
								GRE		
						P 002	Main motor	ASS		



S008/P001 Gear

- (1) Remove the rear cabinet S001/P001.
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the right cabinet S001/P003
- (4) Remove the fan motor unit S010/P001.
- (5) Remove the gear (S008/P001) as shown below.



* Grease up

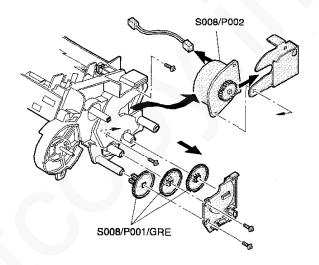
When gears are disassembled or replaced, be sure to grease again.

* Troubles caused by improper work

- 1) Noise generation
- 2) Image deflection
- 3) Banding

S008/P002 Main motor

- (1) Remove the rear cabinet S001/P001
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the right cabinet S001/P003.
- (4) Remove the left cabinet S001/P004.
- (5) Remove the document table glass S001/P007
- (6) Remove the fan motor unit S010/P001.
- (7) Remove the MCU (PCU) PWB unit S009/Ua002
- (9) Remove the gear (S008/P001).
- (10) Remove the screw and the connector, and remove the main motor (S008/P002).



* Grease up

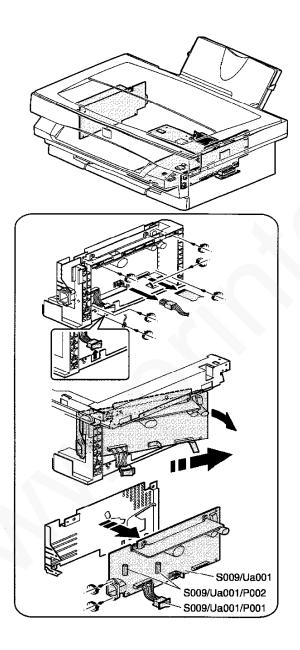
When gears are disassembled or replaced, be sure to grease again.

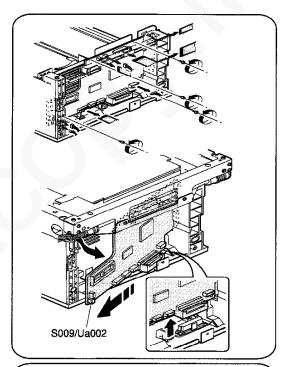
* Troubles caused by improper work

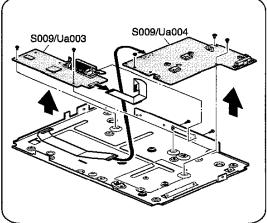
- 1) Noise generation
- 2) Image deflection
- 3) Banding

S009 Electrical section

	Section		Unit			Part		JOB	After-work	NOTE				
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	P No. Part name		P No. Part name		P No. Part name		CODE	JOB No.	NOTE
S 009	Electrical	LIa 001	Power source,					ASS						
			PWB unit			P 001	Power switch	ASS						
						P 002	Fuse	ASS						
		Ua 002	MCU (PCU) PWB unit					ASS	SET M1/M2 ADJ M1/ M4 ~ 6	Adjustment is required when replace				
		Ua 003	ICU PWB/Interface PWB unit					ASS						
		Ua 004	High voltage/motor drive PWB unit					ASS						





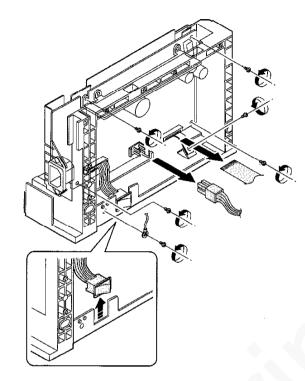


S009/Ua001 Power PWB unit

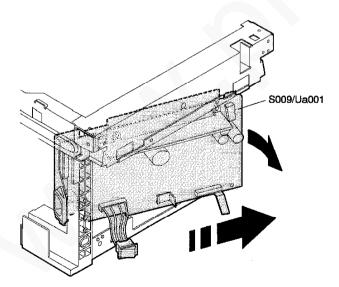
S009/Ua001/P001 Electrical switch

S009/Ua001/P002 Fuse

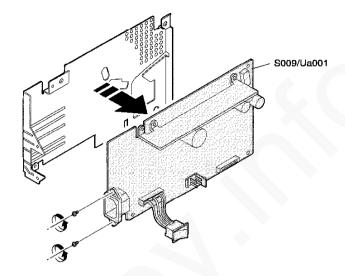
- (1) Remove the rear cabinet S001/P001.
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the left cabinet S001/P004.
- (4) Remove the screw and the connector.



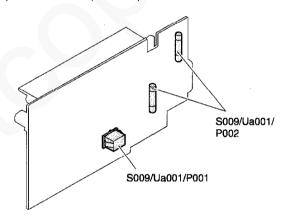
(5) Push the power PWB unit (S009/Ua001) from the inside to



(6) Remove the screw, and remove the power PWB unit (S009/ Ua001) from the base plate.



(7) Remove the power switch (S009/Ua001/P001) and the fuse (S009/Ua001/P002) from the power PWB unit.



* After-work

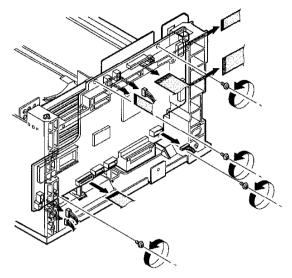
 Output voltage adjustment (When any part i the power unit is replaced.)

* Troubles caused by improper work

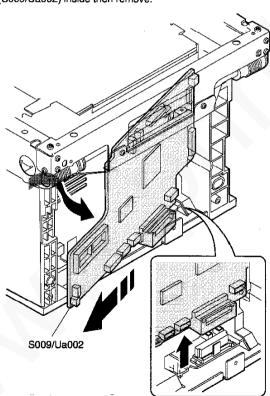
1) Power abnormality

S009/Ua002 MCU (PCU) PWB unit

- (1) Remove the rear cabinet S001/P001
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the right cabinet S001/P003
- (4) Remove the fan motor unit S010/P001.
- (5) Remove the screw and the connector.



(6) Remove the connector, and push the MCU (PCU) PWB unit (S009/Ua002) inside then remove.

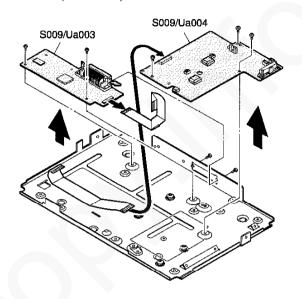


* Troubles caused by improper work

1) Machine malfunction

S009/Ua003 ICU PWB interface PWB unit S009/Ua004 High voltage/motor drive PWB unit

- (1) Remove the base bottom base plate S001/P008.
- (2) Remove the screw and the connector, and remove the ICU PWB interface PWB unit (S009/Ua003) and the high voltage/motor drive PWB unit (S009/Ua004).



* Troubles caused by improper work

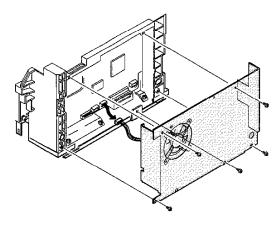
- 1) Printer malfunction
- 2) Print defect

S010 Other section

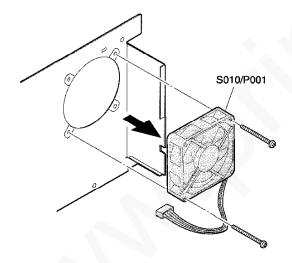
	Section		Unit			Part		Part		JOB	After-work	NOTE
S No.	Part name	Ua No.	Unit name	Ub No.	Unit name	₽ No.	Part name	CODE	JOB No.	NOTE		
S 010	Others	.				P 001	Fan motor	ASS				

S010/P001 Fan motor

- (1) Remove the rear cabinet S001/P001.
- (2) Remove the front upper cabinet S001/P002.
- (3) Remove the right cabinet S001/P003
- (4) Remove the screw and he connector, and remove the fan motor unit.



(5) Remove the screw, and remove the fan motor (S010/P001).



* Troubles caused by improper work

1) Image distortion

[10] TROUBLESHOOTING

1. Self diag message and troubleshooting

A. Outline

When a trouble occurs in the machine or when the life of a consumable part is approached or expired, the machine detects it by itself and displays it on the display section or notifies the user and the serviceman by voices, allowing the user and the serviceman to take proper measures.

In case of a trouble, the occurrence of the trouble is notified and the machine is stopped to minimize damages.

B. Function and propose

- Assuring safety. (The machine is stopped simultaneously with detection of a trouble.)
- Minimizing the machine damages. (The machine is stopped simultaneously with detection of a trouble.)
- The trouble content is displayed to identify the trouble position at an early stage. (The precise repair work is allowed and the repair efficiency is improved.)
- 4) Warning of near end of consumable part life allows arrangement of the consumable part in advance. (Machine stop by exhaustion of consumable part is avoided.)

C. Kinds of self diag messages

The self diag messages are classified as follows:

Group 1	User	Troubles and warnings which can be recovered by the user. (Paper jam, consumable part exhaustion, etc.)
	Service	Troubles and warnings which can be recovered only by the serviceman. (Motor trouble, maintenance, etc.)
	Other	
Group 2	Warning	Warning to the user, and no direct relation with machine troubles. (Consumable part life preliminary warning, etc.)
	Trouble	Machine troubles. The machine is stopped.
	Other	- VPIALE

D. Self diag operation

(1) Self diag operation and flow of countermeasures

The machine is always watching its state.

When the machine detects a trouble, it stops the operation and displays a trouble message.

The warning message is made when a consumable part life is near end or expired.

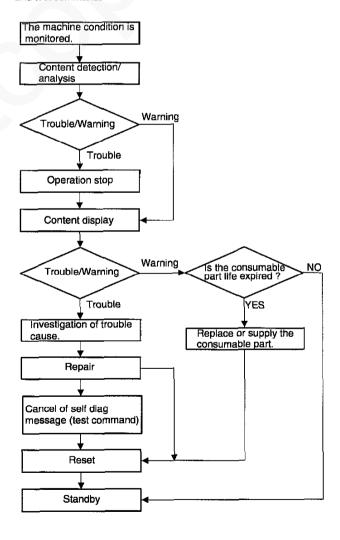
When a warning message is made, there are two cases: where the machine and where the machine is not stopped.

Trouble and warning messages are made by LED and lamps, at the display section, and the host's display section.

The display form and the display position differ depending on the machine specifications.

Trouble messages are cleared automatically after repairing them or must be cleared by test commands.

Warning messages for consumable parts are automatically cleared when the consumable part is supplied or must be cleared by the diag and test commands.



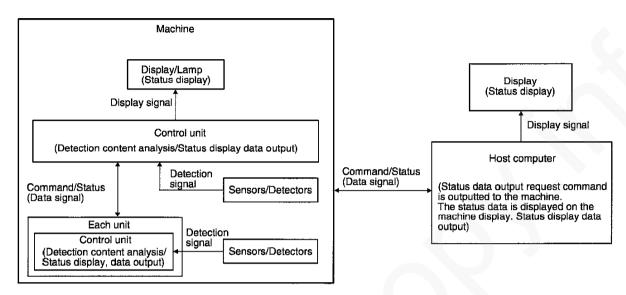
(2) Status detection and display

Recognition of the machine status is made y each unit controller or the machine's controller according to the detection information of sensors and detectors.

The machine status is also recognized by the control data (counter data, etc.) of the controller itself.

The status data from the machine, the option and each unit are sent to the host computer and displayed on the host computer's display.

(The status data output request command is sent between each control unit and the host computer. According to the command, the status data are sent to the unit which requests and the host computer.)



E. List

Display (Code)

No	MAIN CODE	SUB CODE	Content (Title)	Section	Operation mode	Reset method	NOTE
C1	L1	00	Scanner (reading) feed trouble	Scanner (reading)	Сору	SIM 14	
C2	L3	00	Scanner (reading) return trouble	Scanner (reading)	Сору	SIM 14	
СЗ	E7	03	Laser beam output trouble	Scanner (writing)	Copy, print	POWER OFF -	
C4	E7	04	Shading correction (white level) trouble	Scanner (reading)	Сору	POWER OFF -	
C 5	E7	05	Shading correction (dark component) trouble	Scanner (reading)	Сору	POWER OFF -	
C6	E7	12	Shading correction (output level) trouble	Scanner (reading)	Сору	POWER OFF -	
C7	E7	14	ASIC (MCU PWB) malfunction	MCU PWB	All modes	POWER OFF	
C8	E7	15	Copy lamp trouble	Scanner (reading)	Сору	POWER OFF -	
C9	H2	00	Fusing temperature sensor (thermistor) trouble	Fusing	Copy, print	SIM 14	м.
C10	НЗ	00	Fusing high temperature trouble	Fusing	Copy, print	SIM 14	
C11	H4	00	Fusing low temperature trouble	Fusing	Copy, print	SIM 14	
C12	U2	01	EEPROM (MCU PWB) trouble (Counter data error)	MCU PWB	All modes	SIM 16	
C13	U2	04	EEPROM (MCU PWB) trouble (Read/write error)	MCU PWB	All modes	SIM 16	
C14	U2	05	EEPROM (MCU PWB) trouble	MCU PWB	All modes	SIM 16	
C15	U2	06	RAM (MCU PWB) trouble (Read/write error)	MCU PWB	All modes	SIM 16	
C16	C1		Cabinet open/close detection switch trouble	Power PWB	All modes	Reset when the trouble is canceled.	
C17	СН		Developer cartridge detection trouble	Developer cartridge	All modes	Reset when the trouble is canceled.	
C18	E1		Paper misfeed	Paper feed	Copy, print	Reset when the trouble is canceled.	
C19	E2		Paper jam (Paper entry section)	Transfer, paper feed	Copy, print	Reset when the trouble is canceled.	
C20	E3		Paper jam (Fusing, paper exit section)	Fusing	Copy, print	Reset when the trouble is canceled.	
C21	Р		Paper empty	Paper feed	Copy, print	Reset when the trouble is canceled.	

F. Details

SELF DIAG CODE MESSAGE	L1 1

No	C1:20-00-00-00-00-00-00-00-00-00-00-00-00-0				galeriaet list autoria (listre e eleve al	The Law Laborator			
PHENOMENON	DISPLAY	CODE	MAIN CODE	Li ve	SUBCODE	00			
		LAMP							
	TITLE	Scanner (readi	ng) feed trouble		<u>an ann an Compunitation, ann an Airmean ann an Airmean.</u> Caointean ann ann an Airmean ann an Airmean an Airmean				
	DETAIL	1) The scanne	er (reading) feed er (reading) feed						
	SECTION	Scanner (readi			soration to not recognized.				
	ITEM	Operation		Recognition	error				
	TYPE (MODE)	User	1	Warning					
	/ · · · · (· · · · · · · · · · · · · ·	Service	YES						
		Other	YES	Trouble Other	120				
	OPERATION MODE	Сору	1	Guier	Machine operation when the message is displayed	Stop			
	NOTE				incodago io diopidyou				
BASIC CAUSE 1	Though the specified nu scanner home position s				d; motor forward rotation) signals a	re outputted, the			
CASE 1	No		i tai simili aasi 197	Tariotika errettettiv					
	TROUBLE POSITION	The scanner (n	eading) mechani	sm operation is	not smoothly made				
	TROUBLE POSITION CAUSE The scanner (reading) mechanism operation is not smoothly made. 1) Scanner (reading) mechanism lock 2) Scanner (reading) mechanism wear								
	REMEDY	(Check)							
		1) Scanner (re	ading) drive sect						
		Scanner (reading) sliding section (rail, shaft)							
		(Remedy)							
		Grease up. Scanner (reading) section parts replacement							
		3) Reset the trouble with SIM 14.							
		(After work)	OGDIO WILL CHA I	7.					
		, ,	n the scanner (re	ading) section p	parts are disassembled.				
	NOTE								
CASE 2	No circle di la la la la la la la la la la la la la								
	TROUBLE POSITION CAUSE	Scanner home position sensor (MHP) signal recognition error 1) Scanner home position sensor (MHP) trouble 2) MCU PWB scanner home position sensor (MHP) input circuit trouble							
	REMEDY	(Check) 1) Scanner home position sensor (MHP)							
			MCU PWB scanner home position sensor (MHP) input circuit						
		(Remedy) 1) Scanner home position sensor (MHP) replacement 2) MCU PWB replacement							
		3) Rest the trouble with SIM 14.							
		(After work) 1) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.							
	NOTE								
CASE 3	No								
	TROUBLE POSITION	Scanner (readi	ng) motor drive tr	ouble	<u>er men mang at lakura kana dalah dan kana mana bili Silah bili Dengan Probi</u>	and the control of the second second second second second second second second second second second second sec			
	CAUSE	1) Scanner (re	ading) motor trouscanner (reading	uble	circuit trouble				
	REMEDY	(Check)							
		Scanner (re MCU PWB	ading) motor scanner (reading) motor control	circuit trouble				
		2) MCU PWB	•						
		(After work)			imulations to input various set valu	es and			
	NOTE	,							
		<u> </u>							

SELF DIAG CODE MESSAGE	L3
------------------------	----

No	C2									
PHENOMENON	DISPLAY	CODE	MAIN CODE	L3	SUB CODE	00				
		LAMP								
	TITLE	Scanner (readi	ng) return trouble							
	DETAIL	'	er (reading) dose er (reading) return	not return.	ot recognized.					
	SECTION	Scanner (readi	ng)							
	ITEM									
	TYPE (MODE)	User		Warning						
		Service YES Trouble YES								
		Other		Other						
	OPERATION MODE	Сору			Machine operation when the message is displayed	Stop				
	NOTE									
BASIC CAUSE 1	Though the specified no scanner home position				rn (motor reverse rotation) signal i	s outputted, the				
CASE 1	No									
	TROUBLE POSITION CAUSE	AUSE 1) Scanner (reading) mechanism lock								
	REMEDY	Scanner (reading) mechanism wear (Check)								
		1) Scanner (re	ading) drive sect							
		Scanner (reading) sliding section 9rail, shaft)								
		(Remedy)								
		Scanner (reading) section parts replacement								
			uble with SIM 14							
		(After work)								
	1) When the scanner (reading) section parts are disassembled, adjust. NOTE									
04050		Response and the set		Garan ara ata da weka da w	Diagrams and soles of the street was about the basis of the same of the same of the same of the same of the same					
CASE 2	TROUBLE POSITION Scanner home position sensor (MHP) signal recognition error									
	CAUSE	Scanner home position sensor (MHP) signal recognition error 1) Scanner home positions sensor (MHP) trouble 2) MCU PWB scanner home position sensor (MHP) input circuit trouble								
	REMEDY	(Check)								
		Scanner home position sensor (MHP) MCU PWB scanner home position sensor (MHP) input circuit								
		(Remedy)								
		Scanner home position sensor (MHP) replacement MCU PWB replacement								
		3) Reset the trouble with SIM 14.								
		(After work)								
		When the M adjustment	ICU PWB is repla values.	aced, perform sin	nulations to input various set value	es and				
	NOTE									
CASE 3	No									
	TROUBLE POSITION CAUSE	1) Scanner (re	ng) motor drive tr ading) motor tro	uble						
	REMEDY	1	scanner (reading) motor control c	ircuit (rouble					
	REVIEW	(Check) 1) Scanner (reading) motor 2) MCU PWB scanner (reading) motor control circuit								
		2) MCU PWB	•							
		(After work) 1) When the M			nulations to input various set value	es and				
	NOTE	adjustment	values.							
	NOTE									

SELF DIAG CODE MESSAGE	E7

No	C3			ostor piktyik					
PHENOMENON	DISPLAY	CODE	MAIN CODE	E7	SUB CODE	03			
		LAMP				<u>era i manara e e e a paga.</u> Se e i manara e e e a comunicación de escala e e e e e e e e e e e e e e e e e e			
	TITLE	Laser beam output trouble							
	DETAIL	Laser beams are not outputted. Laser beams are not recognized.							
	SECTION	Scanner (writing)							
	ITEM								
	TYPE (MODE)	User		Warning					
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop			
	NOTE								
BASIC CAUSE 1	When the scanner (writing	ng) motor is rota	ting, the laser be	am detection s	ignal (SYNC) is not recognized.				
CASE 1	No								
	TROUBLE POSITION CAUSE	Laser beam sensor signal recognition error 1) Laser beam sensor trouble 2) MCU PWB laser beam sensor input circuit trouble							
	REMEDY	(Check) 1) Laser beam sensor 2) MCU PWB laser beam sensor input circuit							
		(Remedy) 1) Laser beam sensor replacement 2) The MCU PWB replacement							
		(After work) 1) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.							
	NOTE								
CASE 2	No		kata Mataka		en en en en en en en en en en en en				
	TROUBLE POSITION CAUSE	1) Scanner (w	riting) optical sys	tem dirt	reflect and converge laser beams no ullation position shift	ormally.			
	REMEDY	(Check) 1) Scanner (writing) optical system dirt 2) Scanner (writing) optical system parts installing position shift							
		(Remedy) 1) Scanner (writing) optical system cleaning 2) Scanner (writing) optical system cleaning							
		(After work)							
	NOTE								

SELF DIAG CODE MESSAGE	E7

No	C4								
PHENOMENON	DISPLAY	CODE	MAIN CODE	E7	SUB CODE	04			
		LAMP							
	TITLE	Shading corre	ection (white level)	trouble					
	DETAIL		white level output level output is not		correction pperly during shading correct	ion.			
	SECTION	Scanner (read	ding)						
	ITEM								
	TYPE (MODE)	User		Warning					
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	Сору			Message display	Stop			
	NOTE								
BASIC CAUSE 1	The white level output is	s not recognized	d properly during sl	nading correcti	on.				
CASE 1	No								
	TROUBLE POSITION CAUSE	1) Scanner ((reading) optical sy reading) optical sy reading) optical pa	stem dirt	transmit images (light) norm	ally.			
	REMEDY	2) Scanner (i (CCD unit, ler	reading) optical sys reading) optical pa ns, mirror, copy lan	rts installing po	osition light quantity sensor, shading	g correction sheet)			
		(Remedy) 1) Scanner (reading) optical system cleaning 2) Scanner (reading) optical parts installing position adjustment (CCD unit, lens, mirror, copy lamp, copy lamp light quantity sensor shading correction sheet) (After work) 1) Copy density adjustment							
	NOTE				•				
CASE 2	No								
CASE 2	TROUBLE POSITION CAUSE	Shading correction white level output recognition error 1) CCD unit trouble 2) MCU PWB image signal (CCD) input circuit trouble							
				D) input circul	t trouble				
	REMEDY	2) MCU PWE (Check) 1) CCD unit of	3 image signal (CC	•	t trouble				
	REMEDY	2) MCU PWE (Check) 1) CCD unit (2) MCU PWE (Remedy) 1) CCD unit (1)	3 image signal (CC output 3 image signal inpu	•	t trouble				
	REMEDY	2) MCU PWE (Check) 1) CCD unit (2) MCU PWE (Remedy) 1) CCD unit (2) MCU PWE (After work)	B image signal (CC output B image signal input replacement B replacement MCU PWB is repla	it circuit	t trouble	et values and			
	REMEDY	2) MCU PWE (Check) 1) CCD unit (2) MCU PWE (Remedy) 1) CCD unit (2) MCU PWE (After work) 1) When the	B image signal (CC output B image signal input replacement B replacement MCU PWB is repla	it circuit		et values and			
CASE 3		2) MCU PWE (Check) 1) CCD unit (2) MCU PWE (Remedy) 1) CCD unit (2) MCU PWE (After work) 1) When the	B image signal (CC output B image signal input replacement B replacement MCU PWB is repla	it circuit		et values and			
CASE 3	NOTE No TROUBLE POSITION	2) MCU PWE (Check) 1) CCD unit 1 2) MCU PWE (Remedy) 1) CCD unit 1 2) MCU PWE (After work) 1) When the adjustmen	a image signal (CC) output B image signal input replacement B replacement MCU PWB is repla t values.	it circuit		et values and			
CASE 3	NOTE No	2) MCU PWE (Check) 1) CCD unit (2) MCU PWE (Remedy) 1) CCD unit (2) MCU PWE (After work) 1) When the adjustmen Copy lamp lig 1) Copy lamp	a image signal (CC) output B image signal input replacement B replacement MCU PWB is replat t values.	ality		et values and			
CASE 3	NOTE No TROUBLE POSITION	2) MCU PWE (Check) 1) CCD unit 1 2) MCU PWE (Remedy) 1) CCD unit 1 2) MCU PWE (After work) 1) When the adjustmen Copy lamp lig 1) Copy lamp 2 Copy lamp 2 Copy lamp	output B image signal (CC output B image signal input replacement B replacement MCU PWB is replated to values.	aced, perform stality	simulations to input various s	et values and			
CASE 3	NOTE No TROUBLE POSITION CAUSE	2) MCU PWE (Check) 1) CCD unit 1 2) MCU PWE (Remedy) 1) CCD unit 1 2) MCU PWE (After work) 1) When the adjustmen Copy lamp lig 1) Copy lamg 2) Copy lamg 3) Copy lamg	a image signal (CC) output B image signal input replacement B replacement MCU PWB is replat t values.	aced, perform stality	simulations to input various s	et values and			
CASE 3	NOTE No TROUBLE POSITION	2) MCU PWE (Check) 1) CCD unit 1 2) MCU PWE (Remedy) 1) CCD unit 1 2) MCU PWE (After work) 1) When the adjustmen Copy lamp lig 1) Copy lamp 2) Copy lamp 3) Copy lamp (Check)	output B image signal (CC) output B image signal input replacement B replacement MCU PWB is replated to values. Interplacement of trouble of control PWB trought of light quantity adjusted.	aced, perform stality	simulations to input various s	et values and			
CASE 3	NOTE No TROUBLE POSITION CAUSE	2) MCU PWE (Check) 1) CCD unit of the control of th	a image signal (CC) output B image signal input replacement B replacement MCU PWB is replat t values. int quantity abnorm to trouble to control PWB trouble to control PWB trouble to control PWB trouble to control PWB	aced, perform stality	simulations to input various s	et values and			
CASE 3	NOTE No TROUBLE POSITION CAUSE	2) MCU PWE (Check) 1) CCD unit 1 2) MCU PWE (Remedy) 1) CCD unit 1 2) MCU PWE (After work) 1) When the adjustmen Copy lamp lig 1) Copy lamp 2) Copy lamp 3) Copy lamp (Check) 1) Copy lamp 2) Copy lamp 3) Copy lamp 3) Copy lamp 3) Copy lamp 4) Copy lamp 5) Copy lamp 6) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp 7) Copy lamp	a image signal (CC) output B image signal input replacement B replacement MCU PWB is replat t values. The quantity abnorm to trouble to control PWB trou to light quantity adju-	aced, perform stality	simulations to input various s	et values and			
CASE 3	NOTE No TROUBLE POSITION CAUSE	2) MCU PWE (Check) 1) CCD unit of the composition o	a image signal (CC) output B image signal input replacement B replacement MCU PWB is replated to values. Introduce of control PWB trought quantity adjuice of control PWB of control PWB of control PWB of control PWB of control PWB of control PWB of control PWB of light quantity level	aced, perform stality	simulations to input various s	et values and			
CASE 3	NOTE No TROUBLE POSITION CAUSE	2) MCU PWE (Check) 1) CCD unit of the composition o	a image signal (CC) output B image signal input replacement B replacement MCU PWB is replated to values. Introduce of control PWB trought quantity adjust of control PWB of control PWB of control PWB of light quantity lever of replacement	aced, perform statisty	simulations to input various s	et values and			
CASE 3	NOTE No TROUBLE POSITION CAUSE	2) MCU PWE (Check) 1) CCD unit of the composition o	a image signal (CC) output B image signal input replacement B replacement MCU PWB is replated to values. Int quantity abnorm to trouble to control PWB trouble to control PWB to be control PWB to be be be be be be be be be be become to the best of the best o	acement	simulations to input various s	et values and			
CASE 3	NOTE No TROUBLE POSITION CAUSE	2) MCU PWE (Check) 1) CCD unit of the composition o	a image signal (CC) output B image signal input replacement B replacement MCU PWB is replated to values. Introduce of control PWB trought quantity adjust of control PWB of control PWB of control PWB of light quantity lever of replacement	acement	simulations to input various s	et values and			

OF FRIAD CORE MEDDAGE	
SELF DIAG CODE MESSAGE	E/

No	C5					finggal blaktinggan			
PHENOMENON	DISPLAY	CODE	MAIN CO	DE E7	SUB CODE	05			
		LAMP							
	TITLE	Shading correction (dark component) trouble							
	DETAIL				luring shading correction. zed normally during shading corre	ction.			
	SECTION	Scanner (read	ling)						
	ITEM								
	TYPE (MODE)	User		Warning					
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	Сору			Machine operation when the message is displayed	Stop			
	NOTE								
BASIC CAUSE 1	Dark component level of	utput is not reco	gnized norma	lly during shading	correction.				
CASE 1	No				等學者的主義等的主義。	<u> 2014-20 - 20 112</u>			
	TROUBLE POSITION CAUSE	1) Scanner (r		stem does not tran al parts installing po	nsmit images (light) normally. Disition shift				
	REMEDY	(Check) 1) Scanner (reading) optical parts installing position (CCD unit, lens, mirror, copy lamp, copy lamp light quantity sensor, shading correction sheet)							
		(Remedy) 1) Scanner (reading) optical parts installing position adjustment (CCD unit, lens, mirror, copy lamp, copy lamp light quantity sensor, shading correction sheet)							
		(After work) 1) Copy density adjustment							
	NOTE								
CASE 2	No								
	TROUBLE POSITION CAUSE	Dark component output level recognition error during shading correction 1) CCD unit trouble 2) MCU PWB image signal (CCD) input circuit trouble							
	REMEDY	(Check) 1) CCD unit output 2) MCU PWB image signal (CCD) input circuit							
		(Remedy) 1) CCD unit replacement 2) MCU PWB replacement							
		 (After work) 1) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values. 2) When the CCD unit is replaced, adjust. 							
	NOTE								
CASE 3	No								
	TROUBLE POSITION CAUSE	Copy lamp light 1) Copy lamp 2) Copy lamp 3) Copy lamp	trouble control PWB	-					
	REMEDY	(Check) 1) Copy lamp	,		}				
		2) Copy lamp 3) Copy lamp (Remedy)							
		Copy lamp Copy lamp	control PWB						
		(After work) 1) Copy dens	 · · .		·	***			
	NOTE								

SELF DIAG CODE MESSAGE	E7

No	C6								
PHENOMENON	DISPLAY	CODE	MAIN CODE	E7	SUB CODE	12			
		LAMP							
	TITLE	Shading correction (output level) trouble							
	DETAIL		ut abnormality du		rection nading correction				
	SECTION	Scanner (rea	_						
	ITEM	- Coarmon (roa	Gg)						
	TYPE (MODE)	User		Warning					
	TTT E (WODE)	Service	YES	Trouble	YES				
		Other	1123	Other	120				
	OPERATION MODE	Copy		Otries	Machine operation when the message is displayed	Stop			
	NOTE				micouge to origination				
BASIC CAUSE 1	CCD level output red Abnormally low or his								
CASE 1	No								
	TROUBLE POSITION CAUSE	1) Scanner (ding) optical systo reading) optical s reading) optical p	ystem dirt	smit images (light) normally				
	REMEDY	2) Scanner (
		(Remedy) 1) Scanner (reading) optical system cleaning 2) Scanner (reading) optical parts installing position adjustment (CCD unit, lens, mirror, copy lamp, copy lamp light quantity sensor, shading correction sheet)							
		(After work) 1) Copy density adjustment							
	NOTE								
CASE 2	TROUBLE POSITION CAUSE	CCD level output recognition error during shading correction 1) CCD unit trouble							
	REMEDY	MCU PWB image signal (CCD) input circuit trouble (Check) 1) CCD unit output							
		MCU PWB image signal (CCD) input circuit (Remedy) 1) CCD unit replacement 2) MCU PWB replacement							
		(After work) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.							
·	NOTE								
CASE 3	No								
	TROUBLE POSITION CAUSE	1) Copy lam 2) Copy lam	ght quantity abnor p trouble p control PWB tro p light quantity ac	ouble					
	REMEDY	(Check) 1) Copy lamp 2) Copy lamp control PWB 3) Copy lamp light quantity level							
		Copy lam Copy lam	p replacement p control PWB re p light quantity le						
	NOTE	(After work) 1) Copy der	sity adjustment						
	NOTE	<u> </u>		<u></u>					

SELF DIAG	CODE MESSAGE	 E 7

No	C7	log de Redaktés				Market Francis		
PHENOMENON	DISPLAY	CODE	MAIN CODE	E7	SUB CODE	14		
		LAMP		iliya ya ya ya ya ya ya ya ya ya ya ya ya y				
	TITLE	ASIC (MCU PWB) trouble						
	DETAIL	ASIC (MCU PWB) malfunction						
	SECTION	MCU PWB						
	ITEM							
	TYPE (MODE)	User		Warning				
		Service	YES	Trouble	YES			
		Other		Other				
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop		
	NOTE							
BASIC CAUSE 1	ASIC internal register op	eration trouble						
CASE 1								
	TROUBLE POSITION CAUSE	ASIC internal register operation trouble ASIC (MCU PWB) trouble						
	REMEDY	(Check)						
		(Remedy) MCU PWB rep	lacement					
		(After work) 1) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.						
	NOTE		-					

SELF DIAG CODE MESSAGE	E7

No	C8								
PHENOMENON	DISPLAY	CODE	MAIN CODE	E7	SUB CODE	15			
		LAMP							
	TITLE Shading correction (white level) trouble								
	DETAIL		el output abnormali el output recognitio						
	SECTION	Scanner (rea	ding)						
	ITEM								
	TYPE (MODE)	User							
		Service	YES	YES					
		Other		Other					
	OPERATION MODE	Сору			Machine operation when the message is displayed	Stop			
	NOTE								
BASIC CAUSE 1	White level output recog	gnition error du	ring shading correc	tion					
CASE 1	No					edyskymie.			
	TROUBLE POSITION CAUSE	1) Scanner	ding) optical syster (reading) optical sy: (reading) optical pa	stem dirt	smit images (light) normally. sition shift				
	REMEDY	2) Scanner							
		(Remedy) 1) Scanner (reading) optical system cleaning 2) Scanner (reading) optical parts installing position adjustment (CCD unit, lens, mirror, copy lamp, copy lamp light quantity sensor, shading correction sheet)							
		After work 1) Copy density adjustment							
	NOTE								
CASE 2	No								
	TROUBLE POSITION CAUSE	White level output recognition error during shading correction 1) CCD unit trouble 2) MCU PWB image signal (CCD) input circuit trouble							
	REMEDY	(Check) 1) CCD unit output 2) MCU PWB image signal (CCD) input circuit							
		(Remedy) 1) CCD unit replacement 2) MCU PWB replacement							
		(After work) 1) When the adjustment	imulations to input various set value	es and					
	NOTE		it values.						
CASE 3	NOTE No		it values.						
CASE 3		Copy lam Copy lam Copy lam	ght quantity abnorm p trouble p control PWB troul	ality ble					
CASE 3	No TROUBLE POSITION CAUSE	Copy lam Copy lam Copy lam Copy lam	ght quantity abnorm p trouble	ality ble					
CASE 3	No TROUBLE POSITION	1) Copy lam 2) Copy lam 3) Copy lam (Check) 1) Copy lam 2) Copy lam	int quantity abnorm p trouble p control PWB trou p light quantity adju	elity ble estment trouble					
CASE 3	No TROUBLE POSITION CAUSE	1) Copy lam 2) Copy lam 3) Copy lam (Check) 1) Copy lam 2) Copy lam 3) Copy lam (Remedy) 1) Copy lam	ght quantity abnorm p trouble p control PWB trou p light quantity adju p p control PWB p light quantity leve p replacement	elity ble istment trouble					
CASE 3	No TROUBLE POSITION CAUSE	1) Copy lam 2) Copy lam 3) Copy lam (Check) 1) Copy lam 2) Copy lam 3) Copy lam (Remedy) 1) Copy lam 2) Copy lam 2) Copy lam 3) Copy lam (After work)	ght quantity abnorm p trouble p control PWB trou p light quantity adju p p control PWB p control PWB p light quantity leve	elity ble istment trouble					

SELF DIAG CODE MESSAGE	H2

No	C9					al Vacanti, interess		
PHENOMENON	DISPLAY	CODE	MAIN CODE	H2	SUB CODE	00		
		LAMP						
	TITLE Fusing temperature sensor (thermistor) trouble							
	DETAIL	Fusing temperature sensor (thermistor) output level abnormality Fusing temperature sensor (thermistor) output level recognition error						
	SECTION	Fusing						
	ITEM							
	TYPE (MODE)	User		Warning				
		Service	YES	Trouble	YES			
		Other		Other				
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop		
	NOTE							
BASIC CAUSE 1	Fusing temperature sen	sor (thermistor) c	output level recog	nition error				
CASE 1	No. 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1							
	TROUBLE POSITION CAUSE	Fusing temperature sensor (thermistor) signal recognition error 1) Fusing temperature sensor (thermistor) trouble 2) MCU PWB fusing temperature sensor (thermistor) input circuit trouble						
	REMEDY	(Check) 1) Fusing temperature sensor (thermistor) 2) MCU PWB fusing temperature sensor (thermistor) input circuit						
		(Remedy) 1) Fusing temperature sensor (thermistor) replacement 2) MCU PWB replacement 3) Reset the trouble with SIM 14.						
		(After work) 1) When the Madjustment		aced, perform s	imulations to input various set value	es and		
	NOTE							

SELF DIAG CODE MESSAGE	H3

No	C10									
PHENOMENON	DISPLAY	CODE	MAIN CODE	H3	SUB CODE	00				
		LAMP								
	TITLE	Fusing high temperature trouble								
	DETAIL	, ,	•	,	put level abnormality put level recognition error					
	SECTION									
	ITEM									
	TYPE (MODE)	User		Warning						
		Service	YES	Trouble	YES					
		Other		Other						
	OPERATION MODE				Machine operation when the message is displayed	Stop				
	NOTE									
BASIC CAUSE 1	 Fusing temperature Fusing temperature 									
CASE 1	No									
	TROUBLE POSITION CAUSE	Fusing ter MCU PWE	Fusing temperature sensor (thermistor) signal recognition error 1) Fusing temperature sensor (thermistor) trouble 2) MCU PWB temperature sensor (thermistor) input circuit trouble 3) Fusing temperature sensor (thermistor) dirt							
	REMEDY	(Check) 1) Fusing temperature sensor (thermistor) 2) MCU PWB fusing temperature sensor (thermistor) input circuit								
		 (Remedy) 1) Fusing temperature sensor (thermistor) replacement 2) MCU PWB replacement 3) Fusing temperature sensor (thermistor) cleaning 4) Reset the trouble with SIM 14. 								
		(After work)1) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.								
	NOTE									
CASE 2	No									
	TROUBLE POSITION CAUSE	Heater lamp control signal trouble 1) MCU PWB heater lamp control circuit trouble								
	REMEDY	(Check) 1) MCU PWB (Remedy) 1) MCU PWB replacement 2) Reset the trouble with SIM 14. (After work) 1) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.								
	NOTE									
CASE 3	No									
	TROUBLE POSITION CAUSE	Heater lamp drive trouble 1) Power PWB heater lamp drive circuit trouble								
	REMEDY	(Check) 1) Power PWB (Remedy) 1) Power PWB replacement 2) Reset the trouble with SIM 14.								
	>									
		(After work)								
	NOTE									

SELF DIAG CODE MESSAGE	H4

No	C11			era ke ka Garaja.						
PHENOMENON	DISPLAY	CODE	MAIN CODE	H4	SUB CODE	00				
		LAMP		Alejaise Rija						
	TITLE	Fusing low ter	mperature trouble							
	DETAIL				put level abnormality put level recognition error					
	SECTION									
	ITEM									
	TYPE (MODE)	User Warning								
		Service	YES	Trouble	YES					
		Other Other								
	OPERATION MODE				Machine operation when the message is displayed	Stop				
	NOTE									
BASIC CAUSE 1	Fusing temperature Fusing temperature									
CASE 1	No				<u> Chartala la como de la contribilidad de la c</u>	<u>Karan Lagrage</u>				
	TROUBLE POSITION CAUSE	1) Fusing ten	Fusing temperature sensor (thermistor) signal recognition error 1) Fusing temperature sensor (thermistor) trouble 2) MCU PWB fusing temperature sensor (thermistor) input circuit trouble							
	REMEDY	(Check) 1) Fusing temperature sensor (thermistor) 2) MCU PWB fusing temperature sensor (thermistor) input circuit								
		(Remedy) 1) Fusing temperature sensor (thermistor) replacement 2) MCU PWB replacement 3) Reset the trouble with SIM 14.								
		(After work) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.								
	NOTE									
CASE 2	No									
	TROUBLE POSITION CAUSE	Heater lamp control signal trouble 1) MCU PWB heater lamp control circuit trouble								
	REMEDY	(Check) 1) MCU PWB								
		(Remedy) 1) MCU PWB replacement 2) Reset the trouble with SIM 14.								
		(After work) 1) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.								
	NOTE									
CASE 3	No									
	TROUBLE POSITION CAUSE	Heater lamp (1) Power PW	drive trouble /B heater lamp d	rive circuit troubl	de					
	REMEDY	(Check) 1) Power PW	/B							
		2) Reset the	/B replacement trouble with SIM	14.						
		(After work)								
	NOTE									

ſ	SELF DIAG CODE MESSAGE	U2

No	C12							
PHENOMENON	DISPLAY	CODE	MAIN CODE	U2	SUB CODE	01		
		LAMP						
	TITLE	EEPROM (MCU PWB) trouble (counter data error)						
	DETAIL	EEPROM (MC	EEPROM (MCU PWB) counter data trouble (data error)					
	SECTION	MCU PWB		EEPROM				
	ITEM							
	TYPE (MODE)	User		Warning				
		Service		Trouble				
		Other		Other				
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop		
	NOTE							
BASIC CAUSE 1	EEPROM (MCU PWB)	counter data trou	uble (data error)					
CASE 1	No							
	TROUBLE POSITION CAUSE	EEPROM (MCU PWB) counter data trouble EEPROM (MCU PWB) trouble						
	REMEDY	(Check)						
		(Remedy) 1) MCU PWB replacement 2) Reset the trouble with SIM 14. 3) Use simulations to set various set values and adjustment values.						
		(After work)						
	NOTE		·					

SELF DIAG CODE MESSAGE	U2

No	C13								
PHENOMENON	DISPLAY	CODE	MAIN CODE	U2	SUB CODE	04			
		LAMP							
	TITLE	EEPROM (MCU PWB) trouble (read/write error)							
	DETAIL	EEPROM (N	EEPROM (MCU PWB) read/write operation trouble						
	SECTION	MCU PWB EEPROM							
	ITEM								
	TYPE (MODE)	User		Warning					
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop			
	NOTE								
BASIC CAUSE 1	EEPROM (MCU PWB)	read/write ope	ration trouble						
CASE 1	No								
	TROUBLE POSITION CAUSE	EEPROM (MCU PWB) read/write operation trouble EEPROM (MCU PWB) trouble							
	REMEDY	(Check)							
		(Remedy) 1) MCU PWB replacement 2) Reset the trouble with SIM 14. 3) Use simulations to set various set values and adjustment values.							
		(After work)							
	NOTE								

	·
SELF DIAG CODE MESSAGE	U2

No	C14					laterial di di disersi i		
PHENOMENON	DISPLAY	CODE	MAIN CODE	U2	SUB CODE	05		
		LAMP	LAMP CARE DESCRIPTION OF THE PROPERTY OF THE P					
	TITLE	EPROM (MCU PWB) trouble						
	DETAIL	EPROM (MCU PWB) data error						
	SECTION	MCU PWB		EPROM				
	ITEM							
	TYPE (MODE)	User		Warning				
		Service	YES	Trouble	YES			
		Other		Other				
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop		
	NOTE							
BASIC CAUSE 1	EPROM (MCU PWB) d	ata error						
CASE 1	No.							
	TROUBLE POSITION CAUSE	EPROM (MCU PWB) data error EPROM (MCU PWB) trouble						
	REMEDY	(Check)						
		(Remedy) 1) MCU PWB replacement 2) Reset the trouble with SIM 14. 3) Use simulations to set various set values and adjustment values. (After work)						
	NOTE	(non non)						

SELF DIAG CODE MESSAGE	 U2

No	C15					受伤部中的 为50		
PHENOMENON	DISPLAY	CODE	MAIN CODE	U2	SUB CODE	06		
		LAMP						
	TITLE	RAM (MCU PWB) trouble (read/write error)						
	DETAIL	RAM (MCU	RAM (MCU PWB) read/write operation trouble					
	SECTION	MCU PWB		RAM				
	ITEM							
	TYPE (MODE)	User		Warning				
		Service	YES	Trouble	YES			
		Other		Other				
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop		
	NOTE							
BASIC CAUSE 1	RAM (MCU PWB) read	/write operation	n trouble					
CASE 1	No							
	TROUBLE POSITION CAUSE	RAM (MCU PWB) read/write operation trouble RAM (MCU PWB) trouble						
	REMEDY	(Check)						
		(Remedy) 1) MCU PWB replacement 2) Reset the trouble with SIM 14.						
		The set the trouble with shift 14. Use simulations to set various set values and adjustment values.						
		(After work)		********				
	NOTE							

SELF DIAG CODE MESSAGE	C1

No	C16								
PHENOMENON	DISPLAY	CODE	MAIN CODE	C1	SUB CODE				
		LAMP							
	TITLE	Cabinet ope	n/close detection sv	vitch trouble					
	DETAIL	Cabinet (operation unit) open/close detection switch malfunction Cabinet (operation unit) open/close detection switch signal is not recognized.							
	SECTION	Power PWB	unit						
	ITEM								
	TYPE (MODE)	User	YES	Warning	YES				
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	All modes		1	Machine operation when the message is displayed	Stop			
	NOTE								
BASIC CAUSE 1	Cabinet (operation unit)	unit) open/close detection switch signal is not recognized.							
CASE 1	No								
	TROUBLE POSITION CAUSE	Cabinet (operation unit) open/close detection switch signal recognition error 1) Cabinet (operation unit) open/close detection switch trouble 2) MCU PWB cabinet (operation unit) open/close detection switch signal input circuit trouble							
	REMEDY	(Check) 1) Cabinet (operation unit) open/close detection switch 2) MCU PWB cabinet (operation unit) open/close detection switch signal input circuit							
		(Remedy) 1) Cabinet (operation unit) open/close detection switch replacement 2) MCU PWB replacement 3) Power PWB replacement							
		(After work) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.							
	NOTE								
CASE 2	No								
	TROUBLE POSITION CAUSE	opened/close			switch actuator does not operate whi	le the cabinet is			
	REMEDY	(Check) 1) Cabinet (Operation unit)						
		(Remedy) 1) Cabinet (operation unit) repla	acement					
		(After work)							
	NOTE								

SELF DIAG CODE MESSAGE	CH

No	C17			ANTERO NATIONA		vortice Lawery		
PHENOMENON	DISPLAY	CODE	MAIN CODE	СН	SUB CODE			
		LAMP	Developer cart	ridge replacem	ent lamp ON	####		
	TIPLE	Developer cartridge detection trouble						
	DETAIL	Toner density sensor malfunction Toner density sensor signal recognition error						
	SECTION	Developer carti	ridge					
	ITEM							
	TYPE (MODE)	User	YES	Warning	YES			
		Service	YES	Trouble	YES			
		Other		Other				
	OPERATION MODE	All modes Machine operation when the message is displayed Stop						
	NOTE	DTE						
BASIC CAUSE 1	Toner density sensor sig	gnal level recogni	ition error					
CASE 1								
	TROUBLE POSITION CAUSE	Toner density sensor signal recognition error 1) Toner density sensor trouble 2) Toner density sensor signal input circuit trouble						
	REMEDY	(Check) 1) Toner density sensor 2) Toner density sensor signal input circuit (Remedy) 1) Toner density sensor replacement 2) PCU PWB Replacement						
		(After work) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.						
		1) When the M		aced, perform s	imulations to input various set valu	es and		

SELF DIAG CODE MESSAGE	E1
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No	C18								
PHENOMENON	DISPLAY	CODE	MAIN CODE	E1	SUB CODE				
		LAMP	Paper jam lam	o, paper tray la	amp blinking				
	TITLE	Paper misfeed							
	DETAIL	1) Paper entry detection (PIN) malfunction 2) Paper entry detector (PIN) signal recognition error 3) Paper feed roller abnormal rotation							
	SECTION	Fusing, paper	exit						
	ITEM								
	TYPE (MODE)	User	YES	Warning	YES				
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	All modes		1	Machine operation when the message is displayed	Stop			
	NOTE								
BASIC CAUSE 1	Paper entry detector (PIN) signal recognition error Paper feed roller does not feed paper.								
CASE 1	No								
	TROUBLE POSITION CAUSE	Paper entry detector (PIN) signal recognition error 1) Paper entry (PIN) trouble 2) Paper entry detector (PIN) signal input circuit trouble							
	REMEDY	(Check) 1) Paper entry detector (PIN) 2) MCU PWB paper entry detector (PIN) signal input circuit							
		(Remedy) 1) Paper entry detector (PIN) replacement 2) MCU PWB replacement							
		(After work) 1) When the MCU PWB is replaced, perform simulations to input various set values and adjustment values.							
	NOTE								
CASE 2	No								
	TROUBLE POSITION CAUSE	Paper feed roller does not feed paper normally. 1) Paper feed roller clutch drive circuit trouble 2) Paper feed roller clutch trouble 3) Paper feed roller trouble 4) Paper separation sheet trouble							
	REMEDY	(Check) 1) MCU PWB paper feed roller clutch drive circuit 2) Paper feed roller clutch 3) Paper feed roller 4) Paper separation sheet							
		(Remedy) 1) MCU PWB replacement 2) Paper feed roller clutch replacement 3) Paper feed roller replacement 4) Paper separation sheet replacement							
		(After work)							
	NOTE				-				

SELF DIAG CODE MESSAGE	E2

No	C19								
PHENOMENON	DISPLAY	CODE	MAIN CODE	E2	SUB CODE				
		LAMP Paper jam lamp blinking							
	TITLE	Paper jam (paper entry section)							
	DETAIL	Paper entry detector (PIN) malfunction Paper entry detector (PIN) signal recognition error							
	SECTION	Paper entry, transfer							
	ITEM								
	TYPE (MODE)	User	YES	Warning	YES				
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop			
	NOTE								
BASIC CAUSE 1	Paper entry detector (PIN) signal recognition error								
CASE 1	No.								
	TROUBLE POSITION CAUSE	Paper entry detector (PIN) signal recognition error 1) Paper entry detector (PIN) trouble 2) Paper entry detector (PIN) signal input circuit trouble							
	REMEDY	(Check) 1) Paper entry detector (PIN) 2) MCU PWB paper entry detector (PIN) signal input circuit							
		(Remedy) 1) Paper entry detector (PIN) replacement 2) MCU PWB replacement							
		(After work) 1) When the Madjustment		aced, perform s	simulations to input various set value	es and			
	NOTE	adjustment values.							

SELF DIAG CODE MESSAGE E3	

No	C20				garteraro al respisió a estrar el circo de careció e				
PHENOMENON	DISPLAY	CODE	MAIN CODE	E3	SUB CODE				
		LAMP	LAMP Paper jam lam blinking						
	TITLE	Paper jam (fusing, paper exit section)							
	DETAIL	Paper exit detector (POUT) malfunction Paper exit detector (POUT) signal recognition error							
	SECTION	Fusing, pap	er exit						
	ITEM								
	TYPE (MODE)	User	YES	Warning	YES				
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop			
	NOTE								
BASIC CAUSE 1	Paper exit detector (PO	UT) signal rec	ognition error						
CASE 1	No	No							
	TROUBLE POSITION CAUSE	Paper exit detector (POUT) signal recognition error 1) Paper exit detector (POUT) trouble 2) Paper exit detector (POUT) signal input circuit trouble							
	REMEDY	(Check) 1) Paper exit detector (POUT) 2) MCU PWB paper exit detector (POUT) signal input circuit (Remedy) 1) Paper exit detector (POUT) replacement 2) MCU PWB replacement							
			e MCU PWB is reple ent values.	aced, perform s	simulations to input various set valu	es and			
	NOTE								

SELF DIAG CODE MESSAGE	P

No	C21								
PHENOMENON	DISPLAY	CODE	MAIN CODE	P	SUB CODE				
		LAMP	Paper tray lam	o "P" blinking					
	TITLE	Paper empty							
	DETAIL		Paper detector (PE) malfunction Paper detector (PE) signal recognition error						
	SECTION	Paper feed tra	Paper feed tray						
	ITEM								
	TYPE (MODE)	User	YES	Warning	YES				
		Service	YES	Trouble	YES				
		Other		Other					
	OPERATION MODE	All modes			Machine operation when the message is displayed	Stop			
	NOTE				-				
BASIC CAUSE 1	Paper detector (PE) sig	nal recognition	error		· · · · · · · · · · · · · · · · · · ·				
CASE 1	No								
	TROUBLE POSITION CAUSE	Paper detector (PE) signal recognition error 1) Paper detector (PE) trouble 2) Paper detector (PE) signal input circuit trouble							
	REMEDY	(Check) 1) Paper detector (PE) 2) Paper detector (PE) signal input circuit							
		2) Paper dete	ector (PE) Signal in	put circuit					
		(Remedy)	ector (PE) replacer						
		(Remedy) 1) Paper dete 2) MCU PWE (After work)	ector (PE) replacer B replacement MCU PWB is repla	ment	nulations to input various set value	es and			

2. Troubleshooting of print operation (Printer mode)

Problem	Cause	Remedy		
The ready lamp (green) does not light up.	The power switch is not turned on.	Turn on the power switch.		
	The power cord is not connected properly.	Check the power cord connection.		
The GDI driver cannot be installed.	There is no sufficient free space in the hard disk of the computer.	Delete unnecessary files and applications to assure enough space.		
	The operating system is not compatible.	Use the proper operating system (Windows 95, Windows NT4.0).		
The printer does not print.	The interface cable is not connected properly.	Check the interface cable connection. (Check that it is of bi-directional.)		
	The interface cable is defective.	Use the computer and the printer to check that the cable is proper or not. If necessary, replace the interface cable.		
	Incorrect port setting	Check Windows control panel printer setting to confirm that the print job is sent to the proper port (for example, LPT1).		
	Improper installation of developer cartridge and photoconductor cartridge	Check that the developer cartridge and the photoconductor cartridge are properly installed.		
	Paper jam	Remove the paper jam.		
	Incorrect configuration setting of the printer	Perform the GDi test print. If the test print is made properly, GDI printing is properly made. Check the application to confirm that the print setting is proper or not.		
	Incorrect installation of GDI	Reinstall the GDI software and try printing the test page.		
Paper is not fed to the printer.	Improper setting of paper	Set paper properly.		
	The paper release lever is not pushed back.	Insert paper into the paper feed tray and push back the paper release lever.		
	Too much paper is loaded in the paper feed tray.	Remove some paper from the paper feed tray.		
The whole page of printed paper is blank.	Improper installation of developer cartridge	Install the developer cartridge properly.		
	Developer cartridge empty	Replace he developer cartridge.		
Half page of printed paper is blank.	Too complex page layout	Simplify the paper layout. If possible, remove unnecessary format commands from the document.		
		Reduce resolution setting. If currently set to 500dpi, change to 300dpi		
		Install an expansion random access memory (RAM) to the computer.		
	Incorrect setting of page orientation	In the printer setup dialogue box, change the page orientation.		
	Too many applications are open.	Close all the applications before printing.		
		Reduce the resolution setting. If it is set to 600dpi, change to 300dpi.		
		Install an expansion random access memory (RAM) to the computer.		
Half page of printed paper is blank.	The size of paper in the printer is greater than that specified by the application or Windows Printing System.	Set proper paper to the printer.		
	Scaling is set to a lower level than 100%.	In the printer setup dialogue box, change the scaling.		
	Incorrect specification of the interface cable	Check the interface cable specification, or replace the cable with an EEE-1284 cable.		
	Incorrect specification of the CPU	Check that the CPU satisfies the specifications.		
	Insufficient capacity of computer's random access memory RAM	Install an expansion random access memory (RAM) to the computer.		
The printer prints erroneous characters or erroneous data.	Improper connection of the interface cable	Check connection of the interface cable.		
	The GDI software may cause the	Cancel the Windows mode and resume the computer.		
	problem.	Turn off the printer and turn it on again.		
	Incorrect specification of the interface cable	Check the interface cable specification.		

Problem	Cause	Remedy	
Paper jams occur continuously.	Too much paper on the paper feed tray	Remove some paper from the paper feed tray.	
	Paper of unusable kind is used.	Use only the paper which satisfies the specifications.	
	Improper paper exit is made.	Thick paper must not be printed in the normal face down mode. Use the face up mode.	
	The photoconductor cartridge is not properly installed.	Install the photoconductor cartridge properly.	
Slow print speed	When Windows 95 is used, spooling is not properly set.	Point the start task bar setting, and click the printer. Click the printer icon with the right button of the mouse to select the property. Then click the setting button of detailed spool to select spool.	
	Too many applications are opened.	Close all the applications which are not used, then print.	
	The computer RAm disk is used.	Reduce the RAM disk size or do not use the RAM disk.	
	The resolution is set to 600dpi.	Set to 300dpi.	
	Insufficient memory capacity (RAM) of the computer	Install an expansion RAM to the computer.	
The low resolution print function works.	Two or more applications are used simultaneously.	Close all the applications which are not in use, then print.	
	The computer RAM disk is used.	Reduce the RAM disk size or do not use it.	
	The resolution is set to 600dpi.	Set to 300dpi.	
	In the graphic dialogue box, the error dispersion is selected.	Change setting to the gray pattern.	
		Expand the swap file size or the virtual memory size.	
Gray images are not printed properly.	The graphic option setting is improper.	Check the setting in the graphic dialogue box.	
Color display data are not printed properly.	The half tone setting is improper.	Check the setting in the graphic dialogue box.	
Printed with a different font.	TrueType font is not set.	In the font dialogue box of the control panel window, set to disable the use of TrueType font.	

3. Troubleshooting of copy/print quality

Problem	Cause	Remedy	Sample (Sample No.)
Insufficient, irregular density of printing	Paper quality problem	Use paper which satisfies the printer specification.	The space styres of seaging a BASP date or see the senal set of the styres of seaging a BASP date or see the senal set of the styres of seaging and senal set of seaging a set of seaging and seaging a senal seaging a the seagen are set of senal seagen and seagen and seagen as the seagen are set of senal seagen as senal seagen as the seagen are set of senal seagen as senal seagen as the seagen are set of senal seagen as senal seagen as the seagen are set of senal seagen as senal seagen as the seagen are senal seagen as senal seagen as the seagen are senal seagen as senal seagen as the seagen are senal seagen as senal seagen as the seagen are senal seagen as senal seagen as the seagen are senal seagen as senal seagen as the seagen are senal seagen as senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are senal seagen as the seagen are the seagen as the seagen are the seagen as the seagen are the seagen
	Uneven toner distribution	Remove the developer cartridge and shake it to distribute toner evenly.	Removement from the second state of the second
	Main charger, transfer charger, developing bias voltage abnormality	Check the output voltage and replace defective parts. Adjust the output voltage.	Commence of the commence of th
	Main charger, transfer charger, developing charger bias output pin connection failure	Check connection and clean the contact section of electrodes.	To diplot cleans The diplot cle
	Transfer charger roller trouble (dirt, humidity)	Clean the roller. If the abnormality continues, replace the roller.	
	Developing roller trouble (dirt, humidity)	Clean the roller. If the abnormality continues, replace the roller.	
	Developer cartridge trouble	Clean the developer cartridge. If the abnormality continues, replace it.	
	Photoconductor cartridge trouble	Clean the photoconductor cartridge. If the abnormality continues, replace it.	
	Scanner (reading) section dirt	Scanner (reading) section cleaning	
	Scanner (writing) section dirt	Scanner (writing) section cleaning	

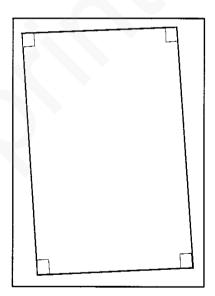
Problem	Cause	Remedy	Sample (Sample No.)
Black stain	Paper quality problem	Use paper which satisfies the printer specifications.	
	A different printer's developer cartridge is installed.	Use the proper developer cartridge. If a developer cartridge which was used in a different printer, a trouble may occur.	
	Main charger voltage and developing bias voltage abnormality	Check the output voltage and replace the defective parts. Adjust the output voltage.	
	Main charger and developing bias output pin connection failure	Check the contact section. Clean the electrode.	
	Developer cartridge trouble, dirt	Clean the developer cartridge. If the abnormality continues, replace it.	
	Transfer charger roller trouble (dirt, humidity)	Clean the roller. If the abnormality continues, replace it.	
	Developing roller trouble (dirt, humidity)	Clean the roller. If the abnormality continues, replace it.	
Chipped character	Too dry paper	Print with different paper.	4
	Developer cartridge trouble	Clean or replace the developer cartridge.	
	Photoconductor cartridge trouble	Clean or replace the photoconductor cartridge.	
	Transfer charger abnormality	Clean the transfer charger, If the abnormality continues, replace it.	
	Transfer charger roller trouble (dirt, abnormality)	Clean the roller. If the abnormality continues, replace it.	
	Developing roller trouble (dirt, humidity)	Clean the roller. If the abnormality continues, replace it.	i
	Scanner (reading) section dirt	Clean the scanner (reading) section.	
	Main charger, transfer charger, developing bias voltage abnormality	Check the output voltage and replace defective parts. Adjust the output voltage.	
Background dirt	Wet paper	Print with different paper. If a paper package is opened unnecessarily, paper absorbs humidity in the air.	
	Rough print surface	When printing on envelopes, change the print layout. The overlapped section on the back must be excluded from the print area.	
	Main charger, developing bias voltage abnormality	Check the output voltage and replace defective parts. Adjust the output voltage.	州
	Main charger, developing bias output pin connection failure	Check the contact and clean the electrode.	
	Developing cartridge trouble, dirt	Clean the developer cartridge. If the abnormality continues, replace it.	
	Photoconductor cartridge trouble	Replace the photoconductor cartridge.	
	Developing roller trouble (dirt, humidity)	Clean the roller. If the abnormality continues, replace it.	
	Scanner (reading) section dirt	Clean the scanner (reading) section.	
	Transfer charger roller trouble (dirt)	Clean or replace the transfer charger roller.	
	Void area adjustment trouble	Adjust the void area.	
	Developer cartridge trouble (dirt)	Clean or replace the developer cartridge.	
	Fusing section trouble (dirt)	Clean or replace the fusing section.	
	Paper feed roller (dirt)	Clean or replace the paper feed roller.	

	Cause	Remedy	Sample (Sample No.)
Missing character	Wet paper	Print with different paper. If a paper package is opened unnecessarily, paper absorbs humidity in the air.	And the second s
	Developer cartridge trouble	Replace the developer cartridge. Clean the developer cartridge.	commercial anniversal arrangement (2.1) of the consequence was a graph of the production of the consequence
	Photoconductor cartridge trouble	Replace the photoconductor cartridge. Clean the photoconductor cartridge.	And the principal promotion with the distributed of mass being a more principal promotion with the contract and principal pr
	Laser unit trouble	Replace the upper frame unit.	Provided Propagation Continues and Continues And Continues and Continues
	Control PWB trouble	Replace the control PWB.	find the large support and considerate the manufacture product of the con- traction of the constraints and constraints the constraints of the cons
	Scanner (reading) section dirt	Clean the scanner (reading) section.	
	Main charger, transfer charger, developing bias voltage abnormality	Check the output voltage and replace defective parts. Adjust the output voltage.	
Faint graphic	Uneven toner distribution	Remove the developer cartridge and shake it to distribute toner evenly.	
	Toner near empty	The developer cartridge replacement time may be approached. Prepare a new developer cartridge.	
	Main charger, transfer charger, developing bias voltage abnormality	Check the output voltage and replace defective parts. Adjust the output voltage.	
Skew print	Transfer charger roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	SMP1
	Developer roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Paper feed roller trouble	Clean or replace the paper feed roller.	
	Separation sheet trouble	Clean or replace the separation sheet.	
	Scanner (reading) section trouble	Adjust the installing positions of parts.	
	Scanner (writing) section trouble	Replace the scanner (writing) unit.	
Black streaks (paper	Developer cartridge trouble	Replace the developer cartridge.	SMP2
transport direction)	Photoconductor cartridge trouble	Replace the photoconductor cartridge.	
	Laser unit trouble	Replace the upper frame unit.	
	Control PWB trouble	Repair the control PWB.	
	Transfer charger roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Developing roller trouble (Dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Scanner (reading) section trouble	Clean the scanner (reading) section.	
	Scanner (writing) section trouble	Clean the scanner (writing) section.	
White streaks (paper transport direction)	Fusing section trouble (dirt) Developer cartridge trouble	Clean or replace the fusing section. Clean the roller. If the abnormality continues, replace it.	SMP3
	Photoconductor cartridge trouble	Replace the developer cartridge.	
	Laser unit trouble	Replace the upper frame unit.	
	Control PWB trouble	Repair the control PWB.	
	Main charger roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Transfer charger roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Developer roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Scanner (reading) section dirt	Clean the scanner (reading) section.	
	Scanner (writing) section dirt	Clean the scanner (writing) section.	
	Fusing section trouble	Clean the fusing section or replace defective	

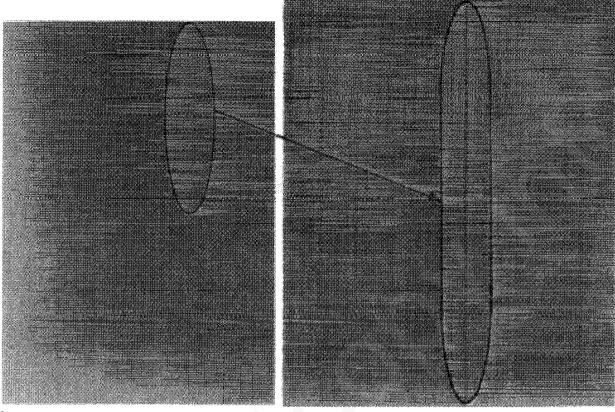
Problem	Cause	Remedy	Sample (Sample No.)
Ghost	Transfer roller trouble	Clean or replace the transfer charger roller.	SMP5
	Transfer charger voltage trouble	Repair or replace the high voltage power PWB.	
	Photoconductor cartridge trouble	Replace the photoconductor cartridge.	
Distorted image print	Paper feed roller trouble	Clean or replace the paper feed roller.	SMP6
	Separation sheet trouble	Clean or replace the separation sheet.	
	Scanner (reading) section trouble	Adjust the installing positions of parts.	
	Scanner (writing) section trouble	Replace the scanner (writing) unit.	
	Transfer charger roller trouble	Clean or replace the transfer charger roller.	
Black print	Main charger voltage trouble	Repair or replace the high voltage power PWB.	SMP7
	Main charger electrode contact failure	Clean the main charger electrode.	
	Copy lamp trouble	Replace the copy lamp.	
	Copy lamp control PWB trouble	Replace the copy lamp control PWB.	
	CCD unit trouble	Replace the CCD unit.	
White print	Transfer charger voltage trouble	Repair or replace the high voltage power PWB.	
	Transfer charger electrode contact failure	Clean the transfer charger electrode.	
	Developing bias voltage trouble	Repair or replace the high voltage power PWB.	
	Developing bias electrode contact failure	Clean the developing bias electrode.	
	Scanner (writing) section trouble	Replace the scanner (writing) section.	
	CCD unit trouble	Replace the CCD unit.	
Banding	Developer cartridge trouble	Replace the developer cartridge.	SMP8
	Photoconductor cartridge trouble	Replace the photoconductor cartridge.	
	Scanner (writing) section	Adjust the installing position of the scanner	
	drive trouble Scanner (writing) section	(writing) section drive part or replace it. Replace the scanner (writing) section.	
	trouble Drive section trouble	Adjust the installing position of the drive part	
Inguan dansity	Scanner (reading) section dirt	or replace it. Clean the scanner (reading) section.	SMP9
Ineven density	Scanner (writing) section dirt	Clean the scanner (reading) section. Clean the scanner (writing) section.	GIVII 3
	Transfer charger voltage trouble	Repair or replace the high voltage power PWB.	
	Transfer charger electrode contact failure	Clean the transfer charger electrode.	
	Developing bias voltage trouble	Repair or replace the high voltage power PWB.	
	Developing bias electrode contact failure	Clean the developing bias electrode.	
	Main charger voltage trouble	Repair or replace the high voltage power PWB.	
	Main charger electrode contact failure	Clean the main charger electrode.	
	Developer cartridge trouble	Replace the developer cartridge.	
	Photoconductor cartridge trouble	Replace the photoconductor cartridge.	
Streaks, black points or white points in 78mm pitch	Developer cartridge trouble (dirt)	Clean or replace the developer cartridge.	SMP10
Streaks, black points or white points in 45mm pitch	Fusing section trouble	Clean or replace the fusing section.	SMP11

Problem	Cause	Remedy	Sample (Sample No.)
Black streaks (Vertical to paper transport direction)	Developer cartridge trouble	Replace the developer cartridge.	
	Photoconductor cartridge trouble	Replace the photoconductor cartridge.	
	Laser unit trouble	Replace the upper frame unit.	
	Control PWB trouble	Repair the control PWB.	
	Transfer charger roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Developing roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Laser unit trouble	Replace the upper frame unit.	
	Scanner (writing) section dirt	Clean the scanner (writing) section.	
White streaks (Vertical to	Developer cartridge trouble	Replace the developer cartridge.	
paper transport direction)	Photoconductor cartridge trouble	Replace the photoconductor cartridge.	
	Laser unit trouble	Replace the upper frame unit.	
	Control PWB trouble	Repair the control PWB.	
	Transfer charger roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Developing roller trouble (dirt, moisture)	Clean the roller. If the abnormality continues, replace it.	
	Scanner (writing) section dirt	Clean the scanner (writing) section dirt	
	Scanner (reading) section dirt	Clean the scanner (reading) section dirt	
Fusing trouble	Abnormally low fusing temperature	Check the temperature sensor and its peripheral circuit. replace the thermistor. Replace the heater lamp. Check the heater drive circuit.	SMP4
	Abnormally high fusing temperature	Clean the fusing section.	
	Heat roller, pressure roller trouble	Replace the heat roller/pressure roller.	

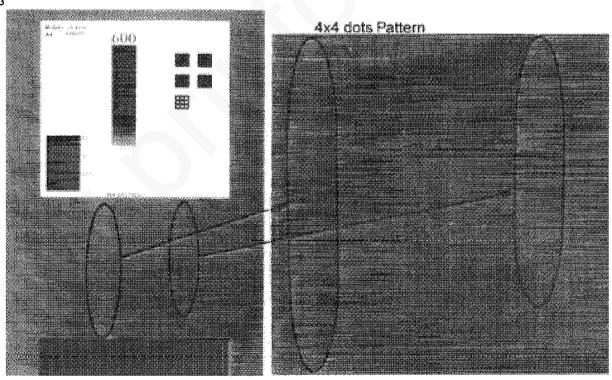
SMP1



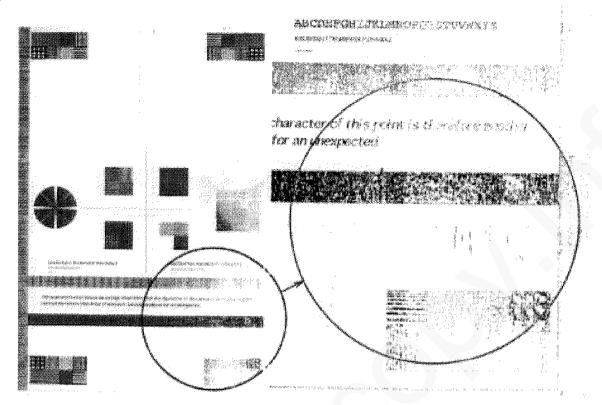
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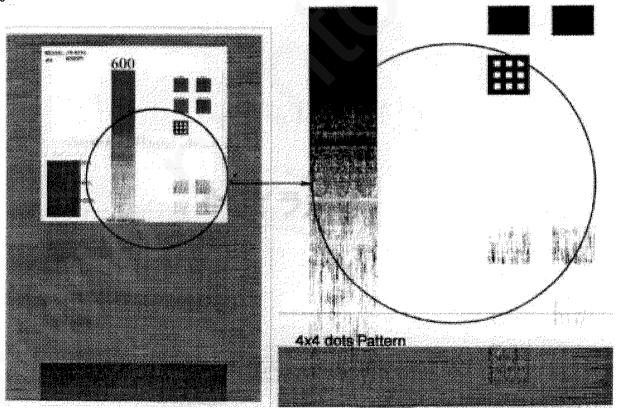
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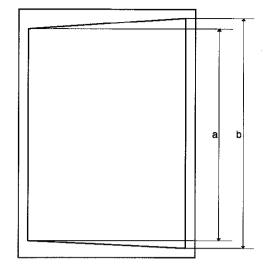
SMP4

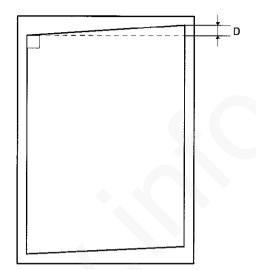


SMP5

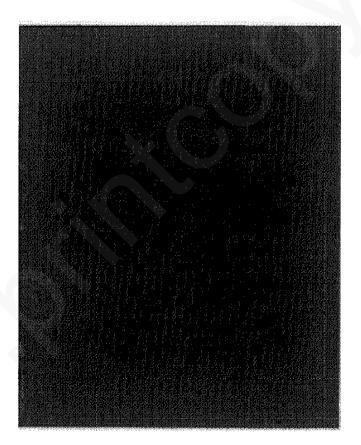


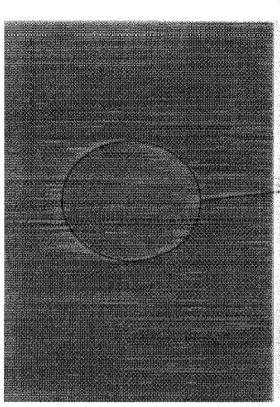
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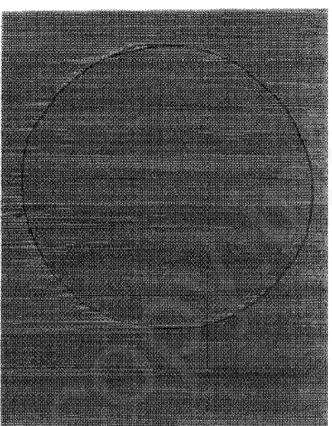




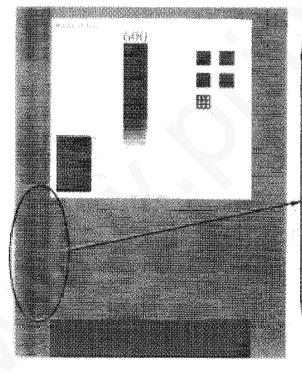
SMP7

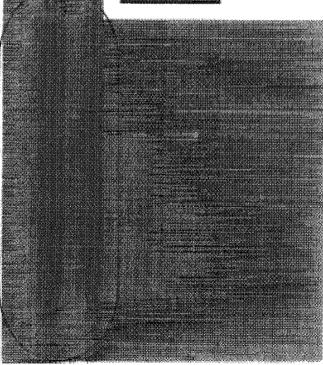




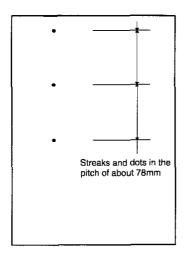


SMP9

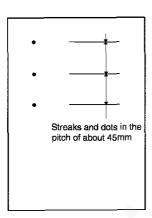




SMP10

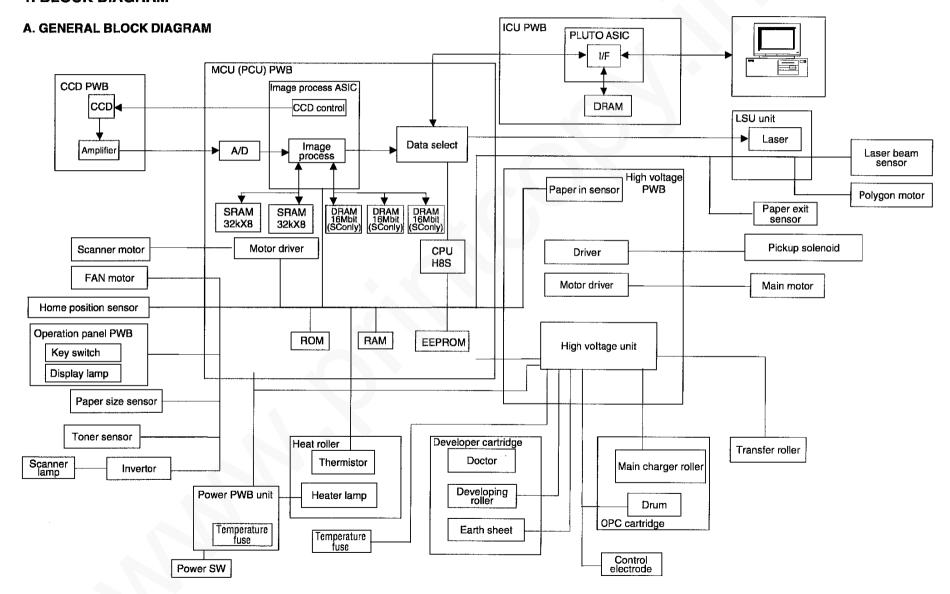


SMP11

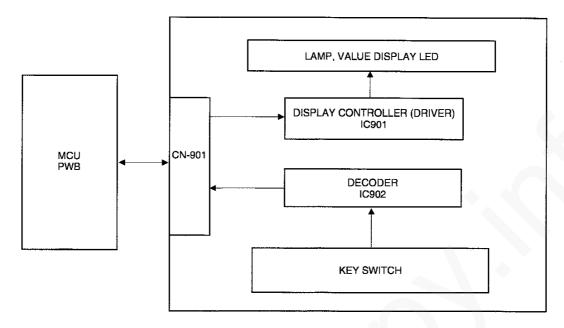


[11] WIRING CHART

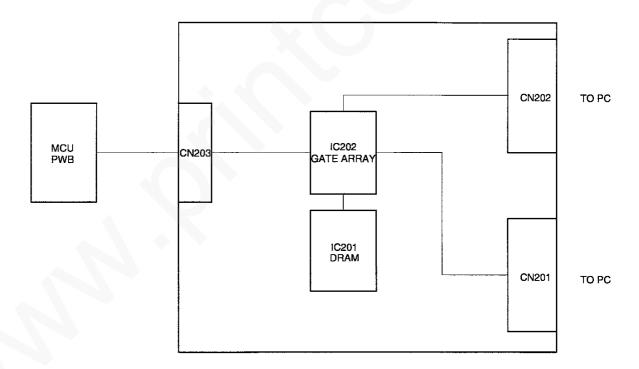
1. BLOCK DIAGRAM



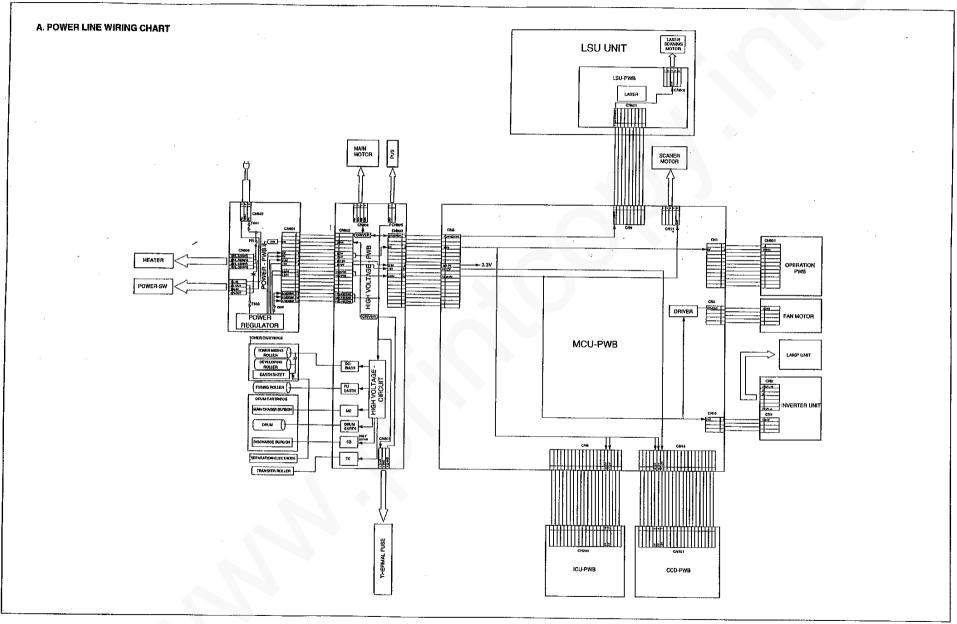
(2) OPERATION PWB SECTION



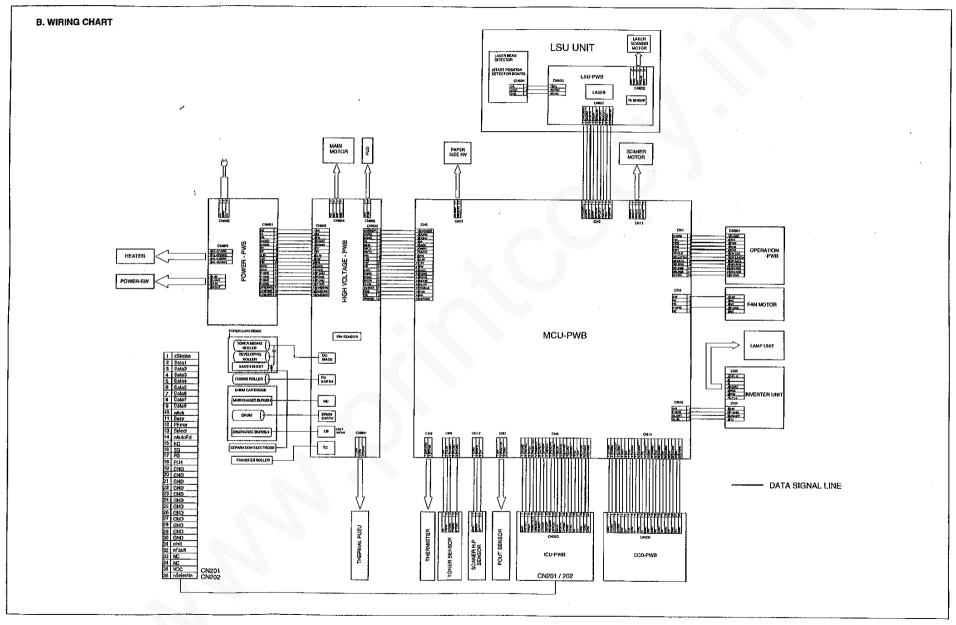
(3) ICU PWB SECTION



2. WIRING CHART



11 - 4



[12] SIGNAL LIST

Signal		Di-	lan		
Signal name	Device	Pin No.	Input/ Output	Content	Remark
3.3V	ASIC	5	Power		
3.3V	ASIC	20	Power		
3.3V	ASIC	31	Power		
3.3V	ASIC	44	Power	<u> </u>	
3.3V	ASIC	57	Power		
3.3V	ASIC	69	Power		-
3.3V	ASIC	88	Power		
3.3V	ASIC	95	Power		-
3.3V	ASIC	249			
5V	ASIC	18	Power		
5V	ASIC	90	Power Power		-
5V	ASIC	108	Power		
5V	ASIC				
		121	Power		
5V	ASIC		Power		-
5V	ASIC	146	Power		<u> </u>
5V	ASIC	172	Power		
5V	ASIC	185	Power		
5V	ASIC	236	Power		
A0	CPU	6	OUT	Address bus (NC-pull up)	
A1	CPU	7	OUT	Address bus	
A10	CPU	17	OUT	Address bus	
A11	CPU	18	OUT	Address bus	
A12	CPU	20	OUT	Address bus	
A13	CPU	21	OUT	Address bus	
A14	CPU	22	OUT	Address bus	
A15	CPU	23	OUT	Address bus	
A16	CPU	24	OUT	Address bus	
A17	CPU	25	OUT	Address bus (NC)	
A18	CPU	26	OUT	Address bus (NC-pull up)	
A19	CPU	27	OUT	Address bus (NC-pull up)	
A2	CPU	8	OUT	Address bus	
A20	CPU	29	OUT	Address bus (NC-pull up)	NC
A3	CPU	9	OUT	Address bus	
A 4	CPU	11	OUT	Address bus	
A5	CPU	12	OUT	Address bus	
A6	CPU	13	OUT	Address bus	
A7	CPU	14	OUT	Address bus	
A8	CPU	15	OUT	Address bus	
A9	CPU	16	OUT	Address bus	
ACK	ASIC	117	OUT	(NC)	
APCSTT	ASIC	215	OUT	APC circuit (LSU) path signal	
AS-	CPU	90	OUT		
AUTOFD	ASIC	115	IN	(NC)	
BCLK	ASIC	177	OUT	CCD black level output latch	
	7.010	.,,		signal	
BUSY	ASIC	118	OUT	(NC)	
Busy1	ASIC	101	OUT	Busy sigлаl. In the	
	(ICU)			compatible mode, driven to HIGH when the engine	
				cannot receive data. In the	
				ECP mode, used to control	
				data transfer.	
Busy2	ASIC	77	OUT	Busy signal. In the	
	(ICU)			compatible mode, driven to HIGH when the engine	
		ł		cannot receive data. In the	
				ECP mode, used to control	
				data transfer.	

Signal	Device	Pin	Input/	Content	Remark
пате		No.	Output		Tierrain
CAS_	ASIC (ICU)	21	ООТ	Column address select (ICU DRAM area control)	
CAS0	ASIC	61	OUT	CAS signal (image area display signal) of DRUM (page memory)	
CAS1	ASIC	62	OUT	CAS signal (image area display signal) of DRUM (page memory)	
CL_CNT	ASIC	220	OUT	Copy lamp control (ON/OFF) signal	
CL_IN	CPU	107	IN	Copy lamp light quantity detection	NC
CLK	ASIC (ICU)	132	OUT	Crystal oscillator connection pin (Input side)	
CLK2	ASIC (ICU)	134	IN	Crystal oscillator connection pin (Output side)	
COE0	ASIC	141	OUT	Read enable signal to SRAM before area separation	
СР	ASIC	176	OUT	A/D conversion IC latch enable	
CPUAD1	ASIC	13	IN	CPU address bus	
CPUAD2	ASIC	12	IN	CPU address bus	
CPUAD3	ASIC	11	IN	CPU address bus	
CPUAD4	ASIC	10	IN	CPU address bus	
CPUAD5	ASIC	9	IN	CPU address bus	
CPUAD6	ASIC	7	IN	CPU address bus	-
CPUAD7	ASIC	6	IN	CPU address bus	
CPUCLK	ASIC	253	IN	CPU system clock	
CPUCLK	CPU	88	OUT	G/A system clock	+
CPUCS	ASIC	16	IN.	CPU chip select signal	
CPUD0	ASIC	248	IN/OUT	CPU data bus	
CPUD1	ASIC	247	IN/OUT	CPU data bus	-
CPUD10	ASIC	237	IN/OUT	CPU data bus	
CPUD11	ASIC	235	IN/OUT	CPU data bus	
CPUD12	ASIC	234	IN/OUT	CPU data bus	
CPUD13	ASIC	233	IN/OUT	CPU data bus	
CPUD14	ASIC	232	IN/OUT	CPU data bus	
CPUD15	ASIC	231	IN/OUT	CPU data bus	-
CPUD2	ASIC	246	IN/OUT	CPU data bus	
CPUD3	ASIC	245		CPU data bus	
CPUD4 CPUD5	ASIC	244	IN/OUT	CPU data bus CPU data bus	
CPUD6	ASIC	243			ļ
CPUD7	ASIC	242		CPU data bus	
	ASIC	241	IN/OUT		
CPUD8	ASIC	240	IN/OUT	CPU data bus	
CPUD9	ASIC	238	IN/OUT	CPU data bus	
CPUSYNC	ASIC	251 14	OUT	CPU read signal Laser horizontal sync signal to CPU	
CPUSYNC	CPU	34	IN	Laser horizontal sync signal	
CPUWR	ASIC	250	IN	CPU write signal	
CS0	CPU	1	OUT	SRAM chip select bsignal	
CS0	CPU	2	OUT	ERPOM chip select	
CS2	CPU	128	OUT	ASIC chip select signal	
CS4-	CPU	66	OUT	Expansion IC select signal	NC
D0	CPU	40	IN/OUT	Data bus	
					ı
D1	CPU	41	IN/OUT	Data bus	

Signal name	Device	Pin No.	Input/ Output	Content	Remark
D11	CPU	52	IN/OUT	Data bus	
D12	CPU	54	IN/OUT	Data bus	
บา3	CHO	55	IN/OUT	Data bus	
D14	CPU	56	IN/OUT	Data bus	
D15	CPU	57	IN/OUT	Data bus	
D2	CPU	42	IN/OUT	Data bus	
D3	CPU	43	IN/OUT	Data bus	
D4	CPU	45	IN/OUT	Data bus	
D5	CPU	46	IN/OUT	Data bus	
D6	CPU	47	IN/OUT	Data bus	
D7	CPU	48	IN/OUT	Data bus	
D8	CPU	49	IN/OUT	Data bus	
D9	CPU	50	IN/OUT	Data bus	
DAH	CPU	111	IN	CCD reference voltage (High)	
DAL	CPU	112	IN	CCD reference voltage (LOW)	
Data 11	ASIC (ICU)	116	IN/OUT	Data bus.	
Data12	ASIC (ICU)	115	IN/OUT	Data bus.	
Data13	ASIC (ICU)	114	IN/OUT	Data bus.	
Data14	ASIC (ICU)	111	IN/OUT	Data bus.	
Data15	ASIC (ICU)	110	IN/OUT	Data bus.	
Data16	ASIC (ICU)	107	IN/OUT	Data bus.	
Data17	ASIC (ICU)	106	IN/OUT	Data bus.	
Data18	ASIC (ICU)	105	IN/OUT	Data bus.	
Data21	ASIC (ICU)	92	IN/OUT	Data bus.	
Data22	ASIC (ICU)	89	IN/OUT	Data bus.	
Data23	ASIC (ICU)	88	IN/OUT		
Data24	ASIC (ICU)	86	IN/OUT		
Data25	ASIC (ICU)	85	IN/OUT		
Data26	ASIC (ICU)	84	IN/OUT	Data bus.	
Data27	ASIC (ICU)	81	IN/OUT		
Data28	ASIC (ICU)	80	IN/OUT	Data bus.	
Data31	ASIC (ICU)	66	IN/OUT	Data bus.	
Data32	ASIC (ICU)	65	IN/OUT		
Data33	ASIC (ICU)	64	IN/OUT	Data bus.	
Data34	ASIC (ICU)	62	IN/OUT	Data bus.	
Data35	ASIC (ICU)	61	IN/OUT	Data bus.	
Data36	ASIC (ICU)	60	IN/OUT	Data bus.	
Data37	ASIC (ICU)	57	IN/OUT	Data bus.	
Data38	ASIC (ICU)	56	IN/OUT	Data bus.	

Signal		Pin	Input/	_	
name	Device	No.	Output	Content	Remark
DCRDY-	ASIC	203	OUT	Serial communication request	
DCRDY_	ASIC (ICU)	6	IN	Command ready. Sends a command to the PCU at LOW.	
DDATA	ASIC (ICU)	17	OUT	Video data	
DOP-	CPU	108	IN	Door open sensor	
DPAGE-	CPU	110	IN	Print request signal from ICU	
DPAGE_	ASIC (ICU)	11	OUT	Page. Driven to LOW when requesting the engine for printing.	
DPRIM-	CPU	33	IN	Communication port initialize signal from ICU	
DPRIM_	ASIC (ICU)	14	OUT		
DREADY-	ASIC	204	QUT	Engine ready	
DREADY_	ASIC (ICU)	5	IN	Engine ready. Shows the print enable state at LOW. Turns HIGH during printing or in case of an print error.	
DSRDY-	CPU	101	IN	Serial communication request from controller	
DSRDY_	ASIC (ICU)	8	OUT	Status ready. At LOW, the PCU can send a status signal.	
EEPCK	CPU	95	OUT	Serial clock output	
EEPD	CPU	96	OUT	Serial data I/O	
ERROR	ASIC	205	OUT	Engine error to ICU	
ERROR	ASIC (ICU)	7	1N	Error. Turns HIGH in case of an engine error.	
ESACK	ASIC	100	IN	(NC)	
ESCS	ASIC	101	IN	(NC)	
ESPRD	ASIC	97	IN	(NC)	
ESREQ	ASIC	99	OUT	(NC)	
EXTAL	CPU	86		Clock	
F_RXD	CPU	62	IN	FAX&PRINTER recpetion buffer	NC
F_TXD	CPU	60	OUT	FAX&PRINTER send enable	NC
f1	ASIC	169	OUT	CCD drive signal transfer clock (First phase)	
f2	ASIC	170	OUT	CCD drive signal transfer clock (Second phase)	
FAULT	ASIC	120	OUT	(NC)	
FAXACK	ASIC	94	IN	(NC)	
FAXCS	ASIC	96	IN	(NC)	
FAXPRD	ASIC	92	IN	(NC)	
FAXREQ	ASIC	93	OUT	(NC)	
FIRQ-	CPU	31	IN	FAXPRINTER	NC
FORATFD	ASIC (ICU)	130	IN	Fixed. (HIGH)	
FORID1	ASIC (ICU)	123	IN	ID ROM select (machine ID No.)	
FORID2	ASIC (ICU)	124	IN	ID ROM select (machine ID No.)	
FORTEST	ASIC (ICU)	121	IN		
FORTEST	ASIC (ICU)	122	IN		
GND	ASIC	8	Power		
GND	ASIC	19	Power		
GND	ASIC	21	Power		
GND	ASIC	34	Power		
GND	ASIC	47	Power	· · · · - 	

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Signal name	Device	Pin No.	Input/ Output	Content	Remark
GND	ASIC	60	Power		
GND	ASIC	72	Power		
GND	ASIC	89	Power		
GND	ASIC	91	Power	, ,	
GND	ASIC	98	Power		
GND	ASIC	111	Power		
GND	ASIC	124	Power		
GND	ASIC	136	Power		
GND	ASIC	149	Power		
GND	ASIC	162	Power		
GND	ASIC	175	Power		
GND	ASIC	188	Power		
GND	ASIC	239	Power		
GND	ASIC	252	Power		
GND	ASIC	254	Power		
GND	ASIC (ICU)	10		GND	
GND	ASIC (ICU)	18	1	GND	
GND	ASIC (ICU)	27	-	GND	
GND	ASIC (ICU)	36	~	GND	
GND	ASIC (ICU)	44	-	GND	
GND	ASIC (ICU)	50	-	GND	
GND	ASIC (ICU)	54	_	GND	
GND	ASIC (ICU)	59	_	GND	
GND	ASIC (ICU)	63	_	GND	
GND	ASIC (ICU)	67	-	GND	
GND	ASIC (ICU)	72	_	GND	
GND	ASIC (ICU)	78	-	GND	
GND	ASIC (ICU)	83	I	GND	
GND	ASIC (ICU)	87	-	GND	
GND	ASIC (ICU)	91	_	GND	
GND	ASIC (ICU)	96	-	GND	
GND	ASIC (ICU)	102		GND	
GND	ASIC (ICU)	108	_	GND	
GND	ASIC (ICU)	112	-	GND	
GND	ASIC (ICU)	117	_	GND	
GND	ASIC (ICU)	127	-	GND	
GND	ASIC (ICU)	131	-	GND	
GND	ASIC (ICU)	135	IN	GND	
GND	ASIC (ICU)	138	_	GND	

Device No. Output Content Remark	Signal		Pin	Input/		T
	_	Device	i		Content	Remark
HSYNC	GND		144	_	GND	
HWR	HLON	CPU	72	OUT	Heater lamp control	
I/O	HSYNC	ASIC	83	OUT	(NC)	
IDINO	HWR	CPU	92	OUT	Write signal (High address)	
IDIN1	I/O		119	OUT		
IDIN2	IDIN0	ASIC	178	IN	· ·	
IDIN3	IDIN1	ASIC	179	IN		
IDIN4	IDIN2	ASIC	180	IN	• • •	
IDIN5 ASIC 183 IN Image scan data (after 13 bit A/D conversion) IDIN6 ASIC 184 IN Image scan data (after 14 bit A/D conversion) IDIN7 ASIC 186 IN Image reading data (16 bit A/D conversion) IDIN7 ASIC 137 IN Image reading data (16 bit A/D conversion) IETON_ ASIC 137 IN IET circuit operation switch (ICU) INIT ASIC 113 IN (INC) INTR ASIC 15 OUT Interrupt request signal INC INTROM ASIC 142 IN (ICU) LD ASIC 198 OUT Laser drive signal LDATAEN ASIC 198 OUT Laser APC signal LEND ASIC 193 OUT Laser APC signal LEND ASIC 15 IN Line end signal LEND_ ASIC 15 IN Line end when HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MAD0 ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 58 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 50 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 51 OUT DRAM (page memory) address bus MAD6 ASIC 51 OUT DRAM (page memory) address bus MAD6 ASIC 51 OUT DRAM (page memory) address bus MAD6 ASIC 51 OUT DRAM (page memory) address bus MAD6 ASIC 51 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus	IDIN3	ASIC	181	IN		
IDIN6 ASIC 184 IN Image scan data (after 14 bit A/D conversion) IDIN7 ASIC 186 IN Image reading data (16 bit A/D conversion) IETON_ ASIC 137 IN IET circuit operation switch (ICU) INIT ASIC 113 IN (NC) INTROM ASIC 112 IN Interrupt request signal NC INTROM ASIC 142 IN (ICU) LD ASIC 192 OUT Laser drive signal LD ASIC 193 OUT Laser enable (ON/OFF) signal LEND ASIC 193 OUT Laser APC signal LEND ASIC 195 IN Line end signal LEND_ ASIC 155 IN Line end When HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MAD0 ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD1 ASIC 58 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 50 OUT DRAM (page memory) address bus MAD3 ASIC 51 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 51 OUT DRAM (page memory) address bus MAD6 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus	IDIN4	ASIC	182	IN		
IDIN7 ASIC 186 IN Image reading data (16 bit A/D conversion) IETON_ ASIC 137 IN IET circuit operation switch (ICU) INIT ASIC 113 IN (NC) INTR ASIC 115 OUT Interrupt request signal NC INTROM ASIC 142 IN (ICU) LD ASIC 192 OUT Laser drive signal LEND ASIC 193 OUT Laser APC signal LEND ASIC 15 IN Line end signal LEND_ ASIC 15 IN Line end signal LEND_ ASIC 15 IN Line end Signal LEND_ ASIC 15 IN Line end When HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MAD0 ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD6 ASIC 55 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus	IDIN5	ASIC	183	IN		
IETON_	IDIN6	ASIC	184	IN		
INIT ASIC 113 IN (NC) INTR ASIC 15 OUT Interrupt request signal NC INTROM ASIC (ICU) LD ASIC 192 OUT Laser drive signal LDATAEN ASIC 198 OUT Laser enable (ON/OFF) signal LEND ASIC 193 OUT Laser APC signal LEND ASIC 15 IN Line end signal LEND ASIC 15 IN Line end When HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MAD0 ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD1 ASIC 58 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD1 ASIC 50 OUT DRAM (page memory) address bus MAD2 ASIC 50 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD6 ASIC 50 OUT DRAM (page memory) address bus MAD6 ASIC 50 OUT DRAM (page memory) address bus MAD7 ASIC 50 OUT DRAM (page memory) address bus MAD8 ASIC 50 OUT DRAM (page memory) address bus MAD8 ASIC 51 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus	IDIN7	ASIC	186	IN		
INTR ASIC 15 OUT Interrupt request signal NC INTROM ASIC (ICU) LD ASIC 192 OUT Laser drive signal LDATAEN ASIC 198 OUT Laser enable (ON/OFF) signal LEND ASIC 193 OUT Laser APC signal LEND ASIC 216 OUT Line end signal LEND ASIC 15 IN Line end. When HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MAD0 ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 58 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD6 ASIC 50 OUT DRAM (page memory) address bus MAD6 ASIC 51 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 51 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus	IETON_		137	IN	IET circuit operation switch	
INTROM ASIC (ICU) LD ASIC 192 OUT Laser drive signal LDATAEN ASIC 198 OUT Laser enable (ON/OFF) signal LEND ASIC 193 OUT Laser APC signal LEND- ASIC 216 OUT Line end signal LEND- ASIC 15 IN Line end. When HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MADD ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD1 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	INIT	ASIC	113	IN	(NC)	
LD ASIC 192 OUT Laser drive signal LDATAEN ASIC 198 OUT Laser enable (ON/OFF) signal LEND ASIC 193 OUT Laser APC signal LEND- ASIC 216 OUT Line end signal LEND- ASIC 15 IN Line end. When HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MADD ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD10 ASIC 58 OUT DRAM (page memory) address bus MAD11 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	INTR	ASIC	15	OUT	Interrupt request signal	NC
LEND ASIC 198 OUT Laser enable (ON/OFF) signal LEND ASIC 193 OUT Laser APC signal LEND ASIC 216 OUT Line end signal LEND ASIC 15 IN Line end. When HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MADD ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD10 ASIC 58 OUT DRAM (page memory) address bus MAD11 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC (ICU) MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	INTROM		142	IN		
LEND ASIC 193 OUT Laser APC signal LEND- ASIC 216 OUT Line end signal LEND_ ASIC 15 IN Line end. When HIGH Is inputted, VDD is driven to HIGH. LWR CPU 93 OUT Write signal (Low address) MADO ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD10 ASIC 58 OUT DRAM (page memory) address bus MAD11 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC (ICU)	LD	ASIC	192	OUT	Laser drive signal	
LEND- ASIC 216 OUT Line end signal LEND_ (ICU)	LDATAEN	ASIC	198	OUT	, ,	
LEND_ (ICU)	LEND	ASIC	193	OUT	Laser APC signal	
CCU Simputted, VDD is driven to HIGH.	LEND-	ASIC	216	OUT	Line end signal	
MAD0 ASIC 46 OUT DRAM (page memory) address bus MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD10 ASIC 58 OUT DRAM (page memory) address bus MAD11 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 51 OUT DRAM (page memory) address bus MAD6 ASIC 52 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	LEND_		15	IN	inputted, VDD is driven to	
MAD1 ASIC 48 OUT DRAM (page memory) address bus MAD10 ASIC 58 OUT DRAM (page memory) address bus MAD11 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	LWR	CPU	93	OUT	Write signal (Low address)	
Address bus MAD10 ASIC 58 OUT DRAM (page memory) address bus MAD11 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 51 OUT DRAM (page memory) address bus MAD6 ASIC 52 OUT DRAM (page memory) address bus MAD7 ASIC 53 OUT DRAM (page memory) address bus MAD8 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD0	ASIC	46	OUT		
Address bus MAD11 ASIC 59 OUT DRAM (page memory) address bus MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 51 OUT DRAM (page memory) address bus MAD6 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD1	ASIC	48	OUT		
MAD2 ASIC 49 OUT DRAM (page memory) address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 52 OUT DRAM (page memory) address bus MAD7 ASIC 53 OUT DRAM (page memory) address bus MAD8 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD10	ASIC	58	OUT		
address bus MAD3 ASIC 50 OUT DRAM (page memory) address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD8 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD11	ASIC	59	OUT		
address bus MAD4 ASIC 51 OUT DRAM (page memory) address bus MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD2	ASIC	49	OUT	, , ,	
MAD5 ASIC 52 OUT DRAM (page memory) address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD3	ASIC	50	OUT		
address bus MAD6 ASIC 53 OUT DRAM (page memory) address bus MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD4	ASIC	51	OUT		
MAD7 ASIC 54 OUT DRAM (page memory) address bus MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD5	ASIC	52	OUT		
MAD8 ASIC 55 OUT DRAM (page memory) address bus MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD6	ASIC	53	OUT		
MAD9 ASIC 56 OUT DRAM (page memory) address bus MASK_PEL ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD7	ASIC	54	OUT		
ASIC 125 IN Parity_error of the status register bit 11 is masked.	MAD8	ASIC	55	OUT		
(ICU) register bit 11 is masked.	MAD9	ASIC	56	OUT		
MCON ASIC 218 OUT Main charger ON	MASK_PEL		125	IN	_	
	MCON	ASIC	218	OUT	Main charger ON	

Signal name	Device	Pin No.	Input/ Output	Content	Remark
MDATA0	ASIC	39	IN/OUT	DRAM (page memory) data bus	
MDATA1	ASIC	38	IN/OUT	DRAM (page memory) data bus	
MDATA10	ASIC	27	IN/OUT	DRAM (page memory) data bus	
MDATA11	ASIC	26	IN/OUT	DRAM (page memory) data	
MDATA12	ASIC	25	IN/OUT	DRAM (page memory) data bus	
MDATA13	ASIC	24	IN/OUT	DRAM (page memory) data bus	
MDATA14	ASIC	23	IN/OUT	DRAM (page memory) data bus	
MDATA15	ASIC	22	IN/OUT	DRAM (page memory) data bus	
MDATA2	ASIC	37	IN/OUT	DRAM (page memory) data	-
МДАТАЗ	ASIC	36	IN/OUT	DRAM (page memory) data bus	
MDATA4	ASIC	35	IN/OUT	DRAM (page memory) data	
MDATA5	ASIC	33	IN/OUT	DRAM (page memory) data bus	
MDATA6	ASIC	32	IN/OUT	DRAM (page memory) data bus	
MDATA7	ASIC	30	IN/OUT	DRAM (page memory) data bus	
MDATA8	ASIC	29	IN/OUT	DRAM (page memory) data bus	
MDATA9	ASIC	28	IN/OUT	DRAM (page memory) data bus	
МЕМ0	ASIC (ICU)	128	IN	Used to set the DRAM size.	
MEM1	ASIC (ICU)	129	IN	Used to set the DRAM size.	
MEN-	ASIC	227	OUT	Main motor drive signal	
MHPS	CPU	38	IN	Mirror home position sensor	
MMTo	CPU	118	OUT	Main motor drive signal 1	
MMT1	CPU	117	OUT	Main motor drive signal 2	-
MODE	ASIC (ICU)	120	IN	At HIGH, IET-processed video data is outputted. At LOW, video data is outputted by bypassing the IET circuit.	
MODE	CPU	106	AIN	Power monitoring	NC
MRMT0	CPU	122	OUT	Mirror motor control signal 1	
MRMT1	CPU	121	OUT	Mirror motor control signal 2	
MRMT2	CPU	120	OUT	Mirror motor control signal 3	
MRMT3	CPU	119	OUT	Mirror motor control signal 4	
MRPS1	CPU	116	OUT	Mirror motor power save 1	
MRPS2	CPU	115	OUT	Mirror motor power save 2	
nAck1	ASIC (ICU)	104	OUT	Acknowledge signal/Handshake signal in the reverse mode	
nAck2	ASIC (ICU)	79	OUT	Acknowledge signal/Handshake signal in the reverse mode	
nAck3	ASIC (ICU)	55	OUT	Acknowledge signal/Handshake signal in the reverse mode	
nAutoFd1	ASIC (ICU)	98	IN	Auto feed signal/Handshake signal in the reverse mode/Command data identification signal	

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Signal	Device	Pin No.	Input/	Content	Remark
name nAutoFd2	ASIC	1NO.	Output	Auto feed signal/Handshake	
MAGIOFQ2	(ICU)	74	IN	signal in the reverse mode/Command data identification signal	
nAutoFd3	ASIC (ICU)	48	IN	Auto feed signal/Handshake signal in the reverse mode/Command data	
nFault1	ASIC	95	OUT	Printer's communication	NC
nFault2	(ICU) ASIC (ICU)	70	OUT	Printer's communication request signal to the host	NC
nFault3	ASIC (ICU)	46	OUT	Printer's communication request signal to the host	NC
nInit1	ASIC (ICU)	97	IN	Data direction (reverse/forward) signal	
nInit2	ASIC (ICU)	71	IN	Data direction (reverse/forward) signal	
nlint3	ASIC (ICU)	47	IN	Data direction (reverse/forward) signal	NC
NM-	CPU	82	IN	Pull up	
nSelectin1	ASIC (ICU)	94	IN	LOW when in the compatible mode	
nSelectin2	ASIC (ICU)	69	IN	LOW when in the compatible mode	
nSelectin3	ASIC (ICU)	45	IN	LOW when in the compatible mode	
NStrobe1	ASIC (ICU)	118	IN	LOW during forward data transmission (Indicates that the transmitted data are effective.)	
nStrobe2	ASIC (ICU)	93	IN	LOW during forward data transmission (Indicates that the transmitted data are effective.)	
nStrobe3	ASIC (ICU)	68	IN	LOW during forward data transmission (Indicates that the transmitted data are effective.)	
OE	ASIC	63	OUT	DRAM (page memory) read enable signal	
OP_CLK	CPU	63	OUT	Clock signal to the operation panel	
OP_DATA	CPU	59	OUT	Data signal to the operation panel	
OP_KIN1	CPU	70	IN	Key input 1	
OP_KIN2	CPU	71	IN	Key input 2	
OP_LATCH	ASIC	199	OUT	Panel data latch signal	
OP_PSW	CPU	69	IN	PRINT SWITCH	
OP_RXD	CPU	61	OUT	Operation panel reception buffer	NC
OPIRQ-	CPU	30	IN	Operation panel	NC
OSCSEL	ASIC (ICU)	141	IN	Fixed. (HIGH)	
OUTDO	ASIC	65	OUT	(NC)	
OUTD1	ASIC	66	OUT	(NC)	
OUTD10	ASIC ASIC	78	OUT	(NC)	
OUTD12	ASIC	77 79	OUT	(NC)	
OUTD13	ASIC	80	OUT	(NC)	
OUTD14	ASIC	81	OUT	(NC)	
OUTD15	ASIC	82	OUT	(NC)	
OUTD2	ASIC	67	OUT	(NC)	
OUTD3	ASIC	68	ОЛТ	((NC)	
OUTD4	ASIC	70	OUT	(NC)	

Signal name	Device	Pin No.	Input/ Output	Content	Remark
OUTD5	ASIC	71	OUT	(NC)	
OUTD6	ASIC	73	OUT	(NC)	
OUTD7	ASIC	74	OUT	(NC)	T
OUTD8	ASIC	75	OUT	(NC)	
OUTD9	ASIC	76	OUT	(NC)	
PARAD0	ASIC	102	IN/OUT	(NC)	
PARAD1	ASIC	103	IN/OUT	(NC)	
PARAD2	ASIC	104	IN/OUT	(NC)	
PARAD3	ASIC	105	IN/OUT		
PARAD4	ASIC	106	IN/OUT		
PARAD5	ASIC	107	IN/OUT	, ,	-
PARAD6	ASIC	109	IN/OUT	· · ·	
PARAD7	ASIC	110	IN/OUT	(NC)	
PCLACK	ASIC	86	IN	(NC)	
PCLCS	ASIC	87	IN	(NC)	
PCLPRD	ASIC	84	IN	· ,	-
			-	(NC)	
PCLREQ	ASIC	85	OUT	(NC)	
PE	ASIC	119	OUT	(NC)	
PEMP	CPU	32	IN	Paper empty sensor	
PError1	ASIC (ICU)	100	OUT	Identification signal of nInit signal which shows data direction (reverse/forward)	
PError2	ASIC (ICU)	76 ·	OUT	Identification signal of nInit signal which shows data direction (reverse/forward)	
PError3	ASIC	52	OUT	Identification signal of nInit	
' =	(ICU)	JE	00,	signal which shows data	
	, ,			direction (reverse/forward)	
PFCLK	ASIC	125	IN	Write clock	
PIN-	CPU	97	IN	Paper feed sensor	
PMCLK	CPU	75	OUT	Polygon motor clock signal	
PMD-	ASIC	217	OUT	Polygon motor drive signal	
POUT-	CPU	98	IN	Paper exit sensor	
PR	ASIC	221	OUT	Power relay control	
PRSTART	ASIC	2	IN	Print start trigger signal	
PRSTART-	ASIC	209	QUT	Print start signal	
PRSTT	ASIC	207	OUT	Pritn start	
PRSTT	ASIC (ICU)	3	IN	Print start	
PSIZE	CPU	127	IN	Paper size sensor	
PUS	ASIC	228	OUT	Pickup solenoid	
PWMCL	CPU	74	OUT	Copy lamp PWM control	NC
PWMSIN	CPU	73	OUT	Sine waveform overlapping MC	
RAMA0	ASIC (ICU)	34	OUT	DRAM address bus	
RAMA1	ASIC (ICU)	33	OUT	DRAM address bus	
RAMA2	ASIC (ICU)	32	OUT	DRAM address bus	
RAMAS	ASIC (ICU)	31	OUT	DRAM address bus	
RAMA4	ASIC (ICU)	30	OUT	DRAM address bus	
RAMA5	ASIC (ICU)	29	OUT	DRAM address bus	
RAMA6	ASIC (ICU)	28	OUT	DRAM address bus	
RAMA7	ASIC (ICU)	26	OUT	DRAM address bus	
RAMA8	ASIC (ICU)	25	OUT	DRAM address bus	

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Signat name	Device	Pin No.	Input/ Output	Content	Remark
RAMA9	ASIC (ICU)	35	OUT	DRAM address bus	-
RAMD1	ASIC (ICU)	43	IN/OUT	DRAM data bus	
RAMD2	ASIC (ICU)	42	IN/OUT	DRAM data bus	
RAMD3	ASIC (ICU)	41	IN/OUT	DRAM data bus	
RAMD4	ASIC (ICU)	40	IN/OUT	DRAM data bus	
RAMD5	ASIC (ICU)	23	IN/OUT	DRAM data bus	
RAMD6	ASIC (ICU)	22	IN/OUT	DRAM data bus	
RAMD7	ASIC (ICU)	21	IN/OUT	DRAM data bus	
RAMD8	ASIC (ICU)	20	IN/OUT	DRAM data bus	
RAMWR_	ASIC (ICU)	39	OUT	Write signal	
RAS_	ASIC (ICU)	38	OUT	Low address select	
RAS0	ASIC	40	OUT	DRAM (page memory) RAS signal 0	
RAS1	ASIC	41	OUT	DRAM (page memory) RAS signal 1	
RAS16	ASIC	45	OUT	(NC)	_ 7
RAS2	ASIC	42	OUT	DRAM (page memory) RAS signal 2	
RAS64	ASIC	43	OUT.	(NC)	
RD	CPU	91	OUT	Read signal	
RES-	CPU	81	IN	Reset	
RESERR	CPU	109	IN	Engine error cancel request from ICU	
RESERR_	ASIC (ICU)	9	OUT	Reset error. Driven to LOW when requesting the engine for error cancel.	
RESET	ASIC	17	IN	Reset signal	
RESET_	ASIC (ICU)	4	IN	System reset	
RESET-ICU	ASIC	206	OUT	ICU RESET signal	
REV .	ASIC	112	OUT	(NC)	
ROMTEST	ASIC (ICU)	136	_	Test signal. At HIGH, enters the test mode. Usually LOW.	
RS	ASIC	173	OUT	CCD drive signal reset pulse	
RTH	CPU	105	AIN	Fusing thermistor	
SAD0	ASIC	154	OUT	Address line to SRAM before area separation	
SAD1	ASIC	155	OUT	Address line to SRAM before area separation	
SAD10	ASIC	165	OUT	Address line to SRAM before area separation	
SAD11	ASIC	166	OUT	Address line to SRAM before area separation	
SAD12	ASIC	167	OUT	Address line to SRAM before area separation	
SAD13	ASIC	168	OUT	Address line to SRAM before area separation	
SAD2	ASIC	156	OUT	Address line to SRAM before area separation	
SAD3	ASIC	157	OUT	Address line to SRAM before area separation	
SAD4	ASIC	158	OUT	Address line to SRAM before area separation	

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Signal	Device	Pin	Input/	Content	Remark
name SAD5	ASIC	No. 159	Output	Address line to SRAM	
DADO	4010	100	OUT	before area separation	
SAD6	ASIC	160	OUT	Address line to SRAM before area separation	
SAD7	ASIC	161	OUT	Address line to SRAM before area separation	
SAD8	ASIC	163	OUT	Address line to SRAM before area separation	
SAD9	ASIC	164	OUT	Address line to SRAM before area separation	
SAMP	ASIC	214	OUT	APC circuit sampling signal (laser power sampling)	
SCANSP	ASIC	1	IN	Scanner process interrupt signal	
SCANSP-	ASIC	211	OUT	Scan stop signal	
SCANST	ASIC	256	IN	Scanner process start signal	
SCANST-	ASIC	212	OUT	Scan start signal	
SCLK-	ASIC	201	OUT	VIDEO I/F serial communication sync clock	
SCLK_	ASIC (ICU)	12	IN	Serial transfer clock	
SCS0	ASIC	143	OUT	Chip select line to SRAM before area separation	
SCS1	ASIC	140	OUT	Chip select line to SRAM before area separation	
SD00	ASIC	144	IN/OUT	Data line to SRAM before area separation	
SD01	ASIC	145	IN/OUT	Data line to SRAM before area separation	
SD02	ASIC	147	IN/OUT	Data line to SRAM before area separation	
SD03	ASIC	148	IN/OUT	Data line to SRAM before area separation	
SD04	ASIC	150	IN/OUT	Data line to SRAM before area separation	
SD05	ASIC	151	IN/OUT	Data line to SRAM before area separation	
SD06	ASIC	152	IN/OUT	Data line to SRAM before area separation	
SD07	ASIC	153	IN/OUT	Data line to SRAM before area separation	
SD10	ASIC	128		Data line to SRAM before area separation	
SD11	ASIC	129	IN/OUT	Data line to SRAM before area separation	
SD12	ASIC	130	IN/OUT	Data line to SRAM before area separation	
SD13	ASIC	131	IN/OUT	Data line to SRAM before area separation	
SD14	ASIC	132	IN/OUT	Data line to SRAM before area separation	
SD15	ASIC	134	IN/OUT	Data line to SRAM before area separation	
SD16	ASIC	135	IN/OUT	Data line to SRAM before area separation	
SD17	ASIC	137	IN/OUT	Data line to SRAM before area separation	
SDA	ASIC (ICU)	140	IN/OUT		
SDATA	ASIC (ICU)	13	IN/OUT	Serial data bus. Bi-directional	
SDATA-	CPU	94	IN/OUT	Video I/F serial communication data	
SDCLK	ASIC	187	OUT	Effective image area signal	NC

Signal name	1					
Select2		Device	Pin No.	Input/ Output	Content	Remark
(ICU)	Select1		99	OUT	request data signal line from	
(ICU) request data signal line from the printer.	Select2		75	OUT	request data signal line from	
SELIN2	Select3		49	OUT	request data signal line from	
SELIN3	SELIN1	ASIC	196	OUT	Input select 1	
SERIAL ASIC 139 IN CCD drive clock (48MHz), also used as internal clock	SELIN2	ASIC	195	OUT	Input select 2	
SFCLK	SELIN3	ASIC	194	OUT	Input select 3	
ASIC 171 OUT CCD drive signal shift pulse	SERIAL		139	IN		
SLCTI	SFCLK	ASIC	189	IN		
SLCTIN ASIC 114 IN (NC)	SH	ASIC	171	OUT	CCD drive signal shift pulse	
SOE1	SLCT	ASIC	122	OUT	(NC)	
SP			114		1 1	
Notd pulse	SOE1	ASIC	138	OUT		
SPMT_0 CPU 79 OUT SPF motor drive signal 1 NC SPMT_1 CPU 78 OUT SPF motor drive signal 2 NC SPMT_2 CPU 77 OUT SPF motor drive signal 3 NC SPMT_3 CPU 76 OUT SPF motor drive signal 4 NC STB ASIC 116 IN (NC) IN STBY CPU 83 IN Pull up IN SWE0 ASIC 142 OUT Write enable line to SRAM before area separation Write enable line to SRAM before area separation SWE1 ASIC 139 OUT Write enable line to SRAM before area separation SWOFF CPU 126 OUT Write enable line to SRAM before area separation SWE1 ASIC 139 UT Write enable line to SRAM before area separation SWE2 ASIC 190 IN Horizontal sync signal from LSU (HSYNC) SYNC_ASIC 181 IN Horizontal sync signal from LSU (HSYNC) SYNC_ASIC	SP	ASIC	174	OUT		
SPMT_1 CPU 78 OUT SPF motor drive signal 2 NC SPMT_2 CPU 77 OUT SPF motor drive signal 3 NC SPMT_3 CPU 76 OUT SPF motor drive signal 4 NC STB ASIC 116 IN (NC) NC STBY CPU 83 IN Pull up Pull up SWE0 ASIC 142 OUT Write enable line to SRAM before area separation SWE1 ASIC 139 OUT Write enable line to SRAM before area separation SWOFF CPU 126 OUT Write enable line to SRAM before area separation SWOFF CPU 126 OUT Power SW OFF NC SYNC ASIC 191 IN Horizontal sync signal from LSU (HSYNC) NC SYNC ASIC 191 IN Horizontal sync signal from LSU (HSYNC) NC SYNC ASIC 190 IN Transfer charger, developing bias ON NC TESPIN1	SPFS	CPU	102	IN	Sensor for SPF	NC
SPMT_2 CPU 77 OUT SPF motor drive signal 3 NC SPMT_3 CPU 76 OUT SPF motor drive signal 4 NC STB ASIC 116 IN (NC) STBY CPU 83 IN Pull up SWE0 ASIC 142 OUT Write enable line to SRAM before area separation SWE1 ASIC 139 OUT Write enable line to SRAM before area separation SWOFF CPU 126 OUT Power SW OFF NC SYNC ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 127 OUT Transfer Carea separation	SPMT_0	CPU	79	OUT	SPF motor drive signal 1	NC
SPMT_3 CPU 76 OUT SPF motor drive signal 4 NC STB ASIC 116 IN (NC) NC STBY CPU 83 IN Pull up Pull up SWE0 ASIC 142 OUT Write enable line to SRAM before area separation SWE1 ASIC 139 OUT Write enable line to SRAM before area separation SWOFF CPU 126 OUT Power SW OFF NC SYNC ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 127 OUT Transfer charger, developing bias ON TESHON_ ASIC 190 IN High:	SPMT_1	CPU	78	OUT	SPF motor drive signal 2	NC
STB	SPMT_2	CPU	77	OUT	SPF motor drive signal 3	NC
STBY CPU 83 IN Pull up SWE0 ASIC 142 OUT Write enable line to SRAM before area separation SWE1 ASIC 139 OUT Write enable line to SRAM before area separation SWOFF CPU 126 OUT Power SW OFF NC SYNC ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 16 IN Sync. Makes timing for starting printing of each line. SYNCEN ASIC 127 OUT Jitter adjustment IC trigger signal TC/BIASON ASIC 219 OUT Transfer charger, developing bias ON TESPIN1 ASIC 126 IN High: Normal, Low: Test TEST port 0 ASIC 190 IN HIGH: Normal, LOW: Test (NC) TEST port 1 ASIC 255 IN HIGH: Normal, LOW: Test TESTPIN0 ASIC 123 IN High: Normal, LOW: Test TM ASIC 229 OUT Toner motor drive output (+) NC TM_ ASIC 230 OUT Toner motor drive output (-) NC TMOLK ASIC 4 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC 19 - +5V VCC ASIC 19 - +5V VCC ASIC 51 - +5V	SPMT_3	CPU	76	OUT	SPF motor drive signal 4	NC
SWE0 ASIC 142 OUT Write enable line to SRAM before area separation SWE1 ASIC 139 OUT Write enable line to SRAM before area separation SWOFF CPU 126 OUT Power SW OFF NC SYNC ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 16 IN Sync. Makes timing for starting printing of each line. SYNCEN ASIC 127 OUT Jitter adjustment IC trigger signal TC/BIASON ASIC 219 OUT Transfer charger, developing bias ON TESPIN1 ASIC 126 IN High: Normal, Low: Test TEST port 1 ASIC 255 IN HIGH: Normal, LOW: Test TEST port 1 ASIC 255 IN HIGH: Normal, LOW: Test TM ASIC 229 OUT Toner motor drive output (+) NC TM_ ASIC 230 OUT Toner motor drive output (-) NC TMON ASIC 3 IN Toner motor reference clock NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC 19 - +5V VCC ASIC 17 - +5V VCC ASIC 51 - +5V	STB	ASIC	116	IN	(NC)	
SWE1 ASIC 139 OUT Write enable line to SRAM before area separation	STBY	CPU	83	IN	Pull up	
SWOFF CPU 126 OUT Power SW OFF NC SYNC ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 16 IN Sync. Makes timing for starting printing of each tine. SYNCEN ASIC 127 OUT Jitter adjustment IC trigger signal TC/BIASON ASIC 219 OUT Transfer charger, developing bias ON TESPIN1 ASIC 126 IN High: Normal, Low: Test TEST port 0 ASIC 190 IN HIGH: Normal, LOW: Test (NC) TEST port 1 ASIC 255 IN HIGH: Normal, LOW: Test TESTPIN0 ASIC 123 IN High: Normal, LOW: Test TM ASIC 229 OUT Toner motor drive output (+) NC TM_ ASIC 230 OUT Toner motor drive output (-) NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC 19 - +5V VCC ASIC 19 - +5V VCC ASIC 17 - +5V VCC ASIC 51 - +5V	SWE0	ASIC	142	OUT		
SYNC ASIC 191 IN Horizontal sync signal from LSU (HSYNC) SYNC_ ASIC 16 IN Sync. Makes timing for starting printing of each line. SYNCEN ASIC 127 OUT Jitter adjustment IC trigger signal TC/BIASON ASIC 219 OUT Transfer charger, developing bias ON TESPIN1 ASIC 126 IN High: Normal, Low: Test TEST port 0 ASIC 190 IN HIGH: Normal, LOW: Test (NC) TEST port 1 ASIC 255 IN HIGH: Normal, LOW: Test TESTPIN0 ASIC 123 IN High: Normal, LOW: Test TM ASIC 229 OUT Toner motor drive output (+) NC TM_ ASIC 230 OUT Toner motor drive output (-) NC TMON ASIC 3 IN Toner motor Preference clock NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC 19 - +5V VCC ASIC 19 - +5V VCC ASIC 37 - +5V VCC ASIC 51 +5V	SWE1	ASIC	139	OUT	1	
SYNC_ ASIC 16 IN Sync. Makes timing for starting printing of each line. SYNCEN ASIC 127 OUT Jitter adjustment IC trigger signal TC/BIASON ASIC 219 OUT Transfer charger, developing bias ON TESPIN1 ASIC 126 IN High: Normal, Low: Test TEST port 0 ASIC 190 IN HIGH: Normal, LOW: Test (NC) TEST port 1 ASIC 255 IN HIGH: Normal, LOW: Test TESTPIN0 ASIC 123 IN High: Normal, LOW: Test TM ASIC 229 OUT Toner motor drive output (+) NC TM_ ASIC 230 OUT Toner motor drive output (-) NC TMOLK ASIC 4 IN Toner motor reference clock NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC 19 - +5V VCC ASIC 19 - +5V VCC ASIC 37 - +5V VCC ASIC 51 +5V	SWOFF	CPU	126	OUT	Power SW OFF	NC
SYNCEN ASIC 127 OUT Jitter adjustment IC trigger signal TC/BIASON ASIC 219 OUT Transfer charger, developing bias ON TESPIN1 ASIC 126 IN High: Normal, Low: Test TEST port 0 ASIC 190 IN HIGH: Normal, LOW: Test (NC) TEST port 1 ASIC 255 IN HIGH: Normal, LOW: Test TESTPIN0 ASIC 123 IN High: Normal, LOW: Test TM ASIC 229 OUT Toner motor drive output (+) NC TM_ ASIC 230 OUT Toner motor drive output (-) NC TMOLK ASIC 4 IN Toner motor reference clock NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC 19 - +5V VCC ASIC 19 - +5V VCC ASIC 51 +5V	SYNC	ASIC	191	IN		
Signal S	SYNC_		16	IN		
TC/BIASON	SYNCEN	ASIC	127	OUT		
TEST port 0	TC/BIASON	ASIC	219	OUT	Transfer charger,	
TEST port 1 ASIC 255 IN HIGH: Normal, LOW: Test	TESPIN1	ASIC	126	IN	High: Normal, Low: Test	
TESTPINO ASIC 123 IN High: Normal, LOW: Test TM ASIC 229 OUT Toner motor drive output (+) NC TM_ ASIC 230 OUT Toner motor drive output (-) NC TMCLK ASIC 4 IN Toner motor reference clock NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC (ICU) 1 - +5V VCC ASIC (ICU) 19 - +5V VCC ASIC (ICU) 37 - +5V VCC ASIC (ICU) 51 - +5V	TEST port 0	ASIC	190	IN		
TM ASIC 229 OUT Toner motor drive output (+) NC TM_ ASIC 230 OUT Toner motor drive output (-) NC TMCLK ASIC 4 IN Toner motor reference clock NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC (ICU) IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC (ICU) 1 - +5V VCC ASIC (ICU) 37 - +5V VCC ASIC (ICU) 37 - +5V	TEST port 1	ASIC	255	IN	HIGH: Normal, LOW: Test	
TM_ ASIC 230 OUT Toner motor drive output (-) NC TMCLK ASIC 4 IN Toner motor reference clock NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC (ICU) IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC (ICU) 1 - +5V VCC ASIC (ICU) 19 - +5V VCC ASIC (ICU) 37 - +5V VCC ASIC 51 +5V	TESTPINO	ASIC	123	IN	High: Normal, LOW: Test	
TMCLK ASIC 4 IN Tonr motor reference clock NC TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor Toner sensor TSTENB ASIC (ICU) 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC (ICU) 1 - +5V VCC ASIC (ICU) 19 - +5V VCC ASIC (ICU) 37 - +5V VCC ASIC 51 - +5V	TM	ASIC	229	OUT	Toner motor drive output (+)	NC
TMON ASIC 3 IN Toner motor ON/OFF NC TS CPU 64 OUT Toner sensor TSTENB ASIC (ICU) 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC (ICU) 1 +5V VCC ASIC (ICU) 19 +5V VCC ASIC (ICU) 37 +5V VCC ASIC 51 +5V	TM_	ASIC	230	OUT	Toner motor drive output (-)	NC
TS CPU 64 OUT Toner sensor TSTENB ASIC (ICU) 143 IN Test signal. At HIGH, enters the test mode. Usually LOW. VCC ASIC (ICU) +5V VCC ASIC (ICU) 7 +5V VCC ASIC 37 - +5V VCC ASIC 51 +5V	TMCLK	ASIC	4	łΝ	Tonr motor reference clock	NC
TSTENB	 	ASIC	3	IN	Toner motor ON/OFF	NC
(ICU) the test mode. Usually LOW. VCC ASIC (ICU) 1 +5V VCC ASIC (ICU) 19 - +5V VCC ASIC (ICU) 37 - +5V VCC ASIC (ICU) 51 +5V				OUT	Toner sensor	
(ICU) VCC ASIC (ICU) 19 - +5V VCC ASIC (ICU) 37 - +5V VCC ASIC 51 - +5V	TSTENB		143	IN		
(ICU) VCC ASIC 37 - +5V VCC ASIC 51 - +5V	vcc		1		+5V	
VCC ASIC 51 +5V	VCC		19	<u>-</u>	+5V	
	VCC		37	_	+5V	
	VCC		51		+5V	

Signal name	Device	Pin No.	Input/ Output	Content	Remark
vcc	ASIC (ICU)	58	-	+5V	
vcc	ASIC (ICU)	73	_	+5V	
vcc	ASIC (ICU)	82	_	+5V	
vcc	ASIC (ICU)	90	-	+5V	
VCC	ASIC (ICU)	103	-	+5V	
VCC	ASIC (ICU)	109	_	+5V	
vcc	ASIC (ICU)	113	_	+5V	
vcc	ASIC (ICU)	126		+5V	
vcc	ASIC (ICU)	133	_	+5 V	
VFM-	ASIC	208	OUT	FAN drive signal	NC
VFM_CNT	ASIC	222	OUT	FAN control signal	
VSYNC	ASIC (ICU)	2	IN	Vertical sync. Informs the start position of one page at the rising edge.	
VSYNC-	ASIC	202	OUT	Paper lead edge sync signal	
WDTOVF-	CPU	80	OUT	Watch dog timer	-
WE	ASIC	64	OUT	DRAM (page memory) write enable signal	
XBUSY3	ASIC (ICU)	53	OUT	Busy signal/Command data identification signal/Used to control data transmission.	
XTAL	CPU	85		Clock	
ZC	CPU	37	IN	Zero cross signal;	
NC	ASIC	224	OUT		
NC NC	ASIC	225	OUT		
	CPU	3		D-GND	
	CPU	4		D-GND	
	CPU	5		5V	
	CPU	10	OUT	D-GND	
	CPU	19	OUT	D-GND	
	CPU	28		D-GND	
	CPU	35		D-GND	<u> </u>
	CPU	36		D-GND	
-	CPU	39		5V	<u> </u>
	CPU	44			
-	CPU	53		D-GND D-GND	
	CPU	58		5V	
	CPU	65		D-GND	
	CPU	67		D-GND	—
	CPU	68		D-GND	
	CPU	84		5V	
	CPU	87		D-GND	
	CPU	89		5V	
	CPU	99		D-GND	
	CPU	100		D-GND	
	CPU	103		A5V	
	CPU	103		Analog reference voltage	
	CPU	113		AN-GND	—— [
	CPU	114		D-GND	
	CPU	123	IN	GND	
	CPU	124	IN	GND	
	CPU	125	IN	Vcc	
	0.0	123	11.4	¥00	

XEROX

XE SERIES PARTS GUIDE

XE60/XE62 XE80/XE82/XE84

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[2]	Operation Panel
[3]	General
[4]	Upper Frame Section (No. 1)
[5]	Lower Frame Section (No. 2)
[6]	Lower Frame (No. 2)
[7]	Fusing Unit
ſΩl	Scanner Unit

- [11] Packing Material & Accessories
- [12] MCU PWB Unit

[10] Carriage 2 Unit

[1] Exteriors

[13] Operation Panel PWB Unit

Carriage 1 Unit

- [14] ICU PWB Unit (XE80, XE82, XE84)
- { 15 } Power Supply Unit
- Index

[9]

701P14330 9/98



DEFINITION

The definition of each Rank is as follows and also noted in the list

A: Parts necessary to be stocked as High usage parts.

B: Parts necessary to be stocked as Standard usage parts.

C: Low usage parts.

D: Parts necessary for refurbish.

E: Unit parts recommended to be stocked for efficient after sales service.

Please note that the lead time for the said parts may be longer than normal parts.

S: Consumable parts.

Please note that the following parts used in Copier under the same description are classified into A or B Rank depending upon the place used.

Example: Gear made of Metal, Sprocket, Bearing, Belt made of Rubber, Spring clutch mechanism.

A Rank : The parts which may be with the revolution or loading.

B Rank : Parts similar to A Rank parts, but are not included in Rank A.

Because parts marked with "A" is indispensable for the machine safety maintenance and operation, it must be replaced with the parts specific to the product specification.

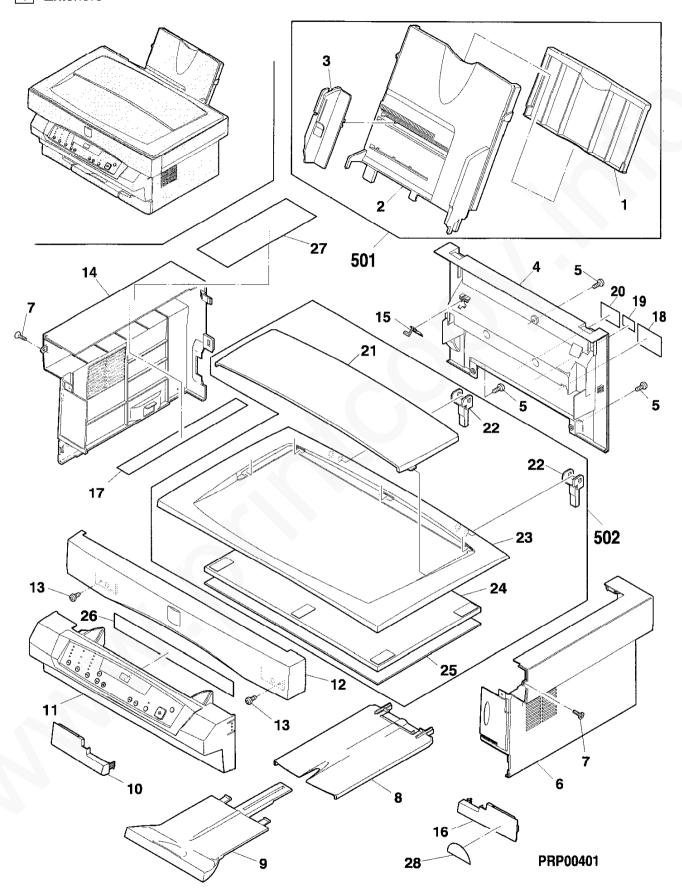
- O Other than this Parts Guide, please refer to documents Service Manual of this model.
- O Please use the 13 digit code described in the right hand corner of front cover of the document, when you place and order.
- O For U.S. only-Use order codes provided in advertising literature. Do not order from parts department.

1 Exteriors

	Exteriors					
NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	
1			AK		С	PU EX tray
2			AQ		С	PU tray
3		038E22360	AG	N	С	Paper guide
4		802E01010	AT	N.	С	Rear cabinet (120V series)
			AX	N	С	Rear cabinet (230V series)
5	-		AA	N	С	Screw (3×8)
6		802E00990	AV	N	С	Rigth Cabinet (120V series)
			AZ	N	С	Rigth Cabinet (230V series)
7					С	Screw
8		050E15070	AM	N	C	Delivery Tray
9	_	050E15080	AN	N	C	Derivery extension Tray
10		802E01030	AK	N	С	Left Cabinet Lower (120V series)
			AL	N	С	Left Cabinet Lower (230V series)
		053E06010	BK	N	E	Operation panel unit (XE-60 120V series)
				N	Ë	Operation Panel unit (XE-60 230V series)
				N	E.	Operation Panel unit (XE-62 120V series)
				N	E	Operation Panel unit (XE-62 230V series)
11				N	E	Operation Panel unit (XE-80 120V series)
				N	E	Operation Panel unit (XE-80 230V series)
				N	E	Operation Panel unit (XE-82 120V series)
				N	E	Operation Panel unit (XE-82 230V series)
				N	E	Operation Panel unit (XE-84 230V series)
- 10		802E00980	AT	N	С	Front Cabinet (120V series)
12			AT	N	C	Front Cabinet (230V series)
13			AA		С	Screw (3×10)
		802E01000	ΑV	N	С	Left cabinet (120V series)
14			AZ	N	С	Left cabinet (230V series)
15		120E19140	AD	N	С	Paper size Actuator
		802E01020	AK	N	C	Rigth Cabinet Lower (120V series)
16			AL	N	Ċ	Rigth Cabinet Lower (230V series)
17			AG	N	C	Sheet
18		891E00470	ΑË		C	Service caution label
19			AC		С	Service man label (230V series)
20			AD		С	Class 1 Label (230V series)
21			AN		С	OC stacker (XE-60,XE-80,XE-84)
22			AE	N	С	OC hinge
			AV	N	С	Original Cover (XE-60,XE-80,XE-84)
23			AV	N	С	Original Cover (XE-62,XE-82)
24			AT	N	C	OC Mat
25		090E02150	AX	N	В	Original Table glass
26		891E75440	AH	l	Č	Operation Label
27		-3,2,3,40	AH	N	Č	Platen Labol
28		891E27220	AC	1,	č	Energy star Label (XE80,XE82 U.S.A only)
501		30,22,220	AU	N	Ē	Paper feed unit (Include No.1 ~3)
		•	BA	N	Ë	Original Cover unit (Include No.21 ~25)(XE-60/XE-80/XE-84)
502			BA	IN	E	Original Cover unit (Include NO.21~25)(XE-60/XE-80/XE-84)
						Griginal Gover and Iniciade No.21 ~20/(AL-02,AL-02)
					 	
		-	1	1		I .



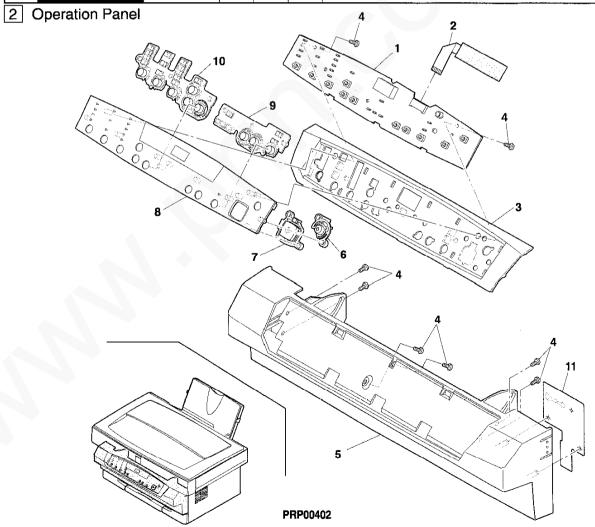
1 Exteriors



XE-60

2 Operation Panel

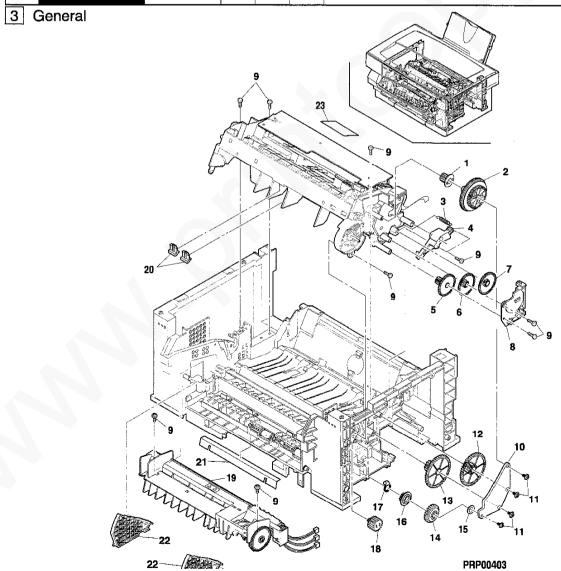
NO.	PARTS CODE	OEM CODE	PRICE	NEW MARK	PART RANK	DESCRIPTION
4			BA	N	Е	Operation panel PWB unit (XE-60,XE-62)
•			BA	N	E	Operation panel PWB unit (XE-80,XE-82,XE-84)
2		160K55790	AK	N	С	Operation FFC
3			AP	N	С	Filter Holder (120V series)
			AP	N	C	Filter Holder (230V series)
4		026E6413/	AA		С	Screw (3x8)
5			ΑU	N	С	Operation panel Cabinet (120V series)
_			AY	N	С	Operation panel Cabinet (230V series)
6		003N00669	AF	N	С	Clear Key
7		003N00673	AF	N	С	Copy Key
			AR	N	С	Operation Panel (XE-60)
			AR	N	С	Operation Panel (XE-62)
8			AR	N	С	Operation Panel (XE-80)
			AR	N	С	Operation Panel (XE-82)
				N	С	Operation Panel (XE-84)
9			AG	N	С	Operation Key R
10			AK	N	С	Operation Key L
11			AF	N	C	Cable cover sheet
		053E06010	BK	N	E	Operation Panel unit (XE-60 120V series)
				N	E	Operation Panel unit (XE-60_230V_series)
1				N	E	Operation Panel unit (XE-62 120V series)
				N	E	Operation Panel unit (XE-62_230V_series)
901				N .	E	Operation Panel unit (XE-80 120V series)
				N	E	Operation Panel unit (XE-80 230V series)
				N	Е	Operation Panel unit (XE-82 120V series)
				N	E	Operation Panel unit (XE-82 230V series)
				N	Е	Operation Panel unit (XE-84 230V series)



	ĺ
YE-GO	

3 General

NO.	PARTS CODE	OEM CODE	PRICE	NEW MARK	PART RANK	DESCRIPTION
1			AC		С	DV idle gear B
2			AG	N	С	DV idle gear A
3			AA		С	Lock lever spring
4		011E09070	AG	N	С	Release Lever
5			AC		С	PU idle gear C
6			AD		С	PU idle gear B2
7			AC		С	PU idle gear A
8			AD		C	PU gear cover
9		026E6413/	AA		С	Screw (3×8)
10			AD		С	Gear plate
11		026E64270	AA		С	Screw (3×8X)
12			AC		C .	Motor idle gear
13			AD		С	DR idle gear A
14		007E55490	AC		С	FU clutch gear A
15			AA		С	Washer (\phi6.2-12 t=0.25)
16		007E55480	AC		С	FU clutch gear B
17			AB		C	FU clutch lever
18			AE		C	FU idle gear
19			BK	N	Е	Fusing unit (120V series)
19			BK	N	Ē	Fusing unit (230V series)
20			AD		С	DV protect
21			AD		Ç	Delivery tray sheet
22		011E09040	AG	N	С	DV Press Lever
23			AC		C	Laser Label (230V series)



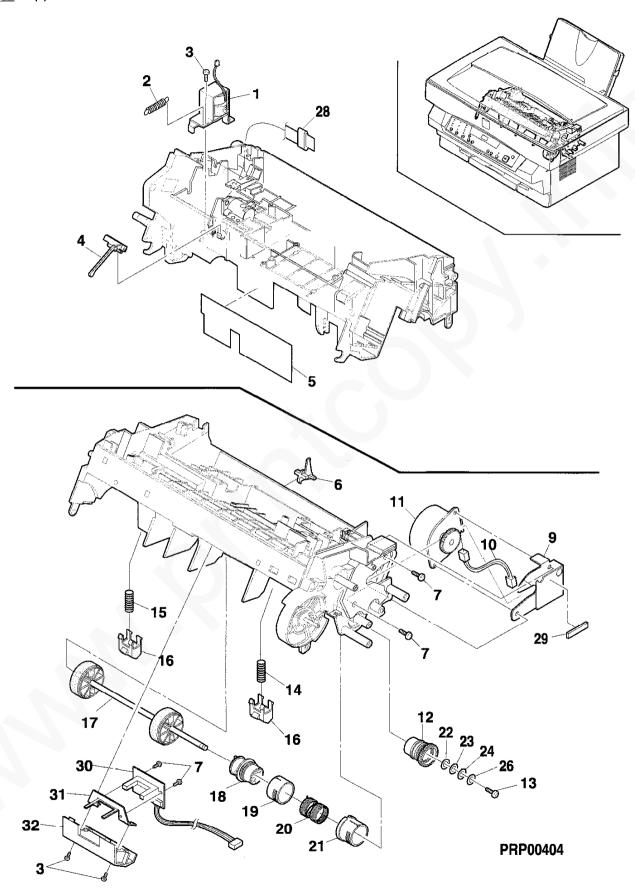


4 Upper Frame Section

1	NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART BANK	DESCRIPTION
AB C Surew (3x8) 1 026E64137 AA C Surew (3x8) 4 011E07890 AC C PE lever 5 AF C Shading sheet 1 AB C Sieve release lever 7 AA C Sieve (3x8) 6 AF C Shading sheet 1 AB C Sieve release lever 7 AA C Sieve (3x8) 9 AF C MM harmess 10 AF C MM harmess 11 1 127E11880 AZ B Main motor 12 007E55460 AE C PUroller gear 13 026E46000 AA C Sieve (3x8KS) 14 AB C DV press spring 15 AA C DV press spring 16 AA C DV press spring 17 022E22650 AR C DV press spring 18 022E22650 AR C PUroller N 19 016E14130 AC C R sieve 20 809E14150 AC C PU coller hoss 19 016E14120 AC C PU coller hoss 21 016E14120 AC C PU coller hose 22 AC C Washer (10.5) 24 AC C Washer (10.5) 26 AA C C Spacer (10.5) 27 AC C Spacer (10.5) 28 AC C FFC Protector 30 AC N E Toner sensor pWB unit 31 AC N C Toner sensor pWB unit 32 AK N C Toner sensor pWB unit 32 AK N C Toner sensor pWB unit 32 AK N C Toner sensor pWB unit 32 AK N C Toner sensor pWB unit 32 AK N C Toner sensor pWB unit 32 AK N C Toner sensor pWB unit 32 AK N C Toner sensor pUse	1						
3	2						Release lever spring
AF	3		02606413/			C	Screw (3x8)
AE C Sleeve release lever AA C Sorew (3x6) AF C MM heart sink AF C MM harness 10 127E11880 AZ B Main motor 120 120 121 121 122 122 132 124 144 155 16 17 18 18 19 19 18 19 19 10 18 19 19 10 10 10 10 10 10 10 10	4		011E07890				PE lever
AA C Screw (3x6) AF C MM heat sink 10 12 127E11880 AZ B Main motor 12 007E55460 AE C PU roller gear 13 026E46000 AA C Screw (3x8KS) 14 AB C DV press spring 15 AA C DV press spring 16 AC C DV fixer plate 17 022E22650 AR C PU roller N 18 022E22660 AE C PU roller N 19 016E14130 AC C PU roller poss 20 809E14150 AC C R sleeve 20 809E14150 AC C PU clutch spring 21 016E14120 AC C PU clutch sleeve 22 AC C Washer (T0.133) 23 AC C Washer (T0.25) 24 AC C Spacer (T0.1) 26 AC C Screw (3x6) AB Main motor AB Main motor DV press spring OV press spring OV press spring C PU roller N C PU roller N C PU roller N C PU clutch sleeve 20 809E14150 AC C PU clutch sleeve 21 AC C Washer (T0.133) AC C C Washer (T0.15) 24 AC C Spacer (T0.1) 26 AC C Spacer (T0.1) 30 AB C FFC Protector 30 AC N C Toner sensor PWB unit 31 AC N C Toner sensor polate 32 AK N C Toner sensor cover	5			AF			Shading sheet 1
9	6			AE			Sleeve release lever
11				AA			Screw (3x6)
11	- 40			AF			MM heat sink
12 13 14 15 16 17 18 18 19 19 10 18 19 10 18 10 19 10 10 11 11 11 11 12 12 13 14 15 16 17 18 18 18 19 19 10 16 11 19 10 16 11 11 11 11 11 11 11 11 11 11 11 11			107511000				
13 14 15 16 16 17 18 19 202E22650 AR C DV press spring 18 19 1016E14130 AC C PU roller N 20 20 809E14150 AC C PU clutch spring 21 016E14120 AC C PU clutch sleeve 22 AC C Washer (T0.133) 23 24 AC C Washer (T0.5) 26 AC C Spacer (T0.1) 28 29 AC C C Spacer (T0.1) 29 AB C FFC Protector 30 AC N C Toner sensor PWB unit 31 AC N C Toner sensor cover			007555460	AZ.			Main motor
AB			007E33460				Pu roller gear
AA			02024000	ΔR			DV proce spring
AC							DV press spring
17 18 022E22660 AE C PU roller N 19 016E14130 AC C R sieeve 20 809E14150 AC C PU clutch spring 21 016E14120 AC C PU clutch sleeve 22 AC C Washer (T0.133) 23 AC C Washer (T0.5) 24 AC C Washer (T0.5) 26 AC C Spacer (T0.1) 28 AC C Spacer (T0.1) 29 AB C FFC Protector 30 AQ N E Toner sensor PWB unit 31 AC N C Toner sensor cover							DV fiver plate
18	17		022E22650	AB			PU roller N
19			022E22660	AE			PU roller boss
State			016E14130				R sieeve
21 016E14120 AC C PU clutch sleeve 22 AC C Washer (T0.133) 23 AC C Washer (T0.25) 24 AC C Washer (T0.5) 26 AC C Spacer (T0.1) 28 AH C Core (NGF25/20) 29 AB C FFC Protector 30 AQ N E Toner sensor PWB unit 31 AC N C Toner sensor plate 32 AK N C Toner sensor cover	20		809E14150	AC			PU clutch spring
AC	21		016E14120	AC			PU clutch sleeve
24 AC C Washer (T0.5) 26 AC C Spacer (T0.1) 28 AH C Core (NQF25/20) 29 AB C FFC Protector 30 AQ N E Toner sensor PWB unit 31 AC N C Toner sensor plate 32 AK N C Toner sensor cover				AC		C	Washer (T0.133)
AC C Spacer (T0.1) 28 AH C Core (NQF25/20) 29 AB C FFC Protector 30 AQ N E Toner sensor PWB unit 31 AC N C Toner sensor plate 32 AK N C Toner sensor cover							Washer (T0.25)
28 AH C Core (NQF25/20) 29 AB C FFC Protector 30 AQ N E Toner sensor PWB unit 31 AC N C Toner sensor plate 32 AK N C Toner sensor cover							Washer (T0.5)
29 AB C FFC Protector 30 AQ N E Toner sensor PWB unit 31 AC N C Toner sensor plate 32 AK N C Toner sensor cover BV N E Upper Frame unit (120V series)	26			AC			Spacer (T0.1)
30	28						Core (NQF25/20)
31				AB			FFC Protector
AK N C Toner sensor cover BV N E Upper Frame unit (120V series)				AQ			
BV N E Upper Frame unit (120V series)				AC			Toner sensor plate
901 IK720 FO BV N E Upper Frame unit (120V series) IK720 FO BV N E Upper Fra	32			AK	N	U U	Toner sensor cover
901				BV	N	F	Upper Frame unit (120V perioe)
	901		142070				Unper Frame unit (230V series)
			1272010	DV			opper Frame unit (2007 Series)
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4 Upper Frame Section



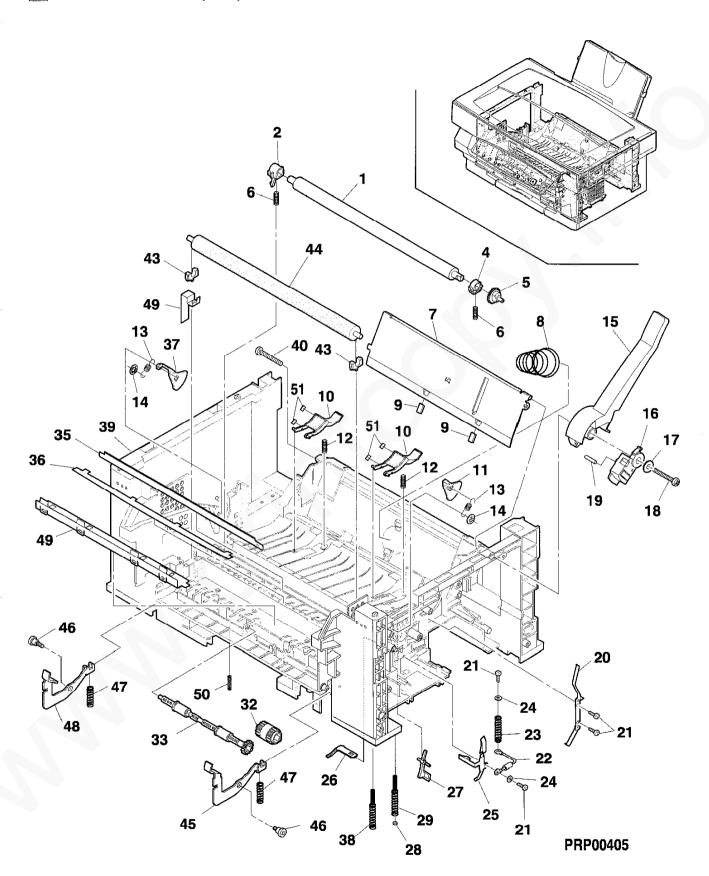


5 Lower Frame Section(No.1)

IO. PART		PRICE	NEW	PART	DESCRIPTION
		DAINE	MARK	RANK	
2	013E14320	AW		С	TR Roller
4	013014310			C	TR bearing L
5	007E55470			C	TR bearing R TR gear
6	007E3547C				
		AB AK		C	TR spring (silver) Lift Plate
7 8		AD	N	C	Tray spring
9		AC		C	
10		AH	N.		Tray sheet J
			N	E	Separator (Include No.51)
11		AC		_ c	DR lock lever R
12		AB	N	Č	Separator Spring
13		AB		С	DR lock spring
14	04450000	AA		C	Washer (CS-3)
15.	011E09060		N .	C	Tray Lock Lever
16		AC		C	SB release lever
17		AA		С	Washer (3W)
18		AA		С	Screw (3×30)
19		AA		С	Spring pin (2×14)
20		AD		С	DV terminal
21	026E6413/	AA		С	Screw (3×8)
22			N	E	DV bias Resistor unit
23		AB		С	DV bias spring
24		AA		С	Washer
25		AE		С	Earth terminal
26		AC		С	TR terminal spring
27		AD	N	C	Pin Actuator
28		AA		С	Terminal cover
29		AB		С	MC terminal spring
32	007E59420		N	С	FU Gear 15T
33	022E23300	AG	N	C	Delivery Roller
35	015E67270	AE		Ç	Discharger plate
36		AM		С	FU guide
37		AC		С	DR lock lever L
38		AB		С	FU GND spring
39		BB	N	С	Lower Frame
40		AA		С	Screw (3×18)
43	013E14330	AF		С	FU bearing
44	022E22690	AY		С	FUP roller
45		AF	N	С	Release Lever R
46	026E72690	AC	N	С	Screw
47	809E18520	AB	N	С	Release Lever Spring
48		AF	N	С	Release Lever L
49	015E72570	AG	N	С	Scraper
50	809E18510	AB	N	С	Spring
51		AB		С	Noise buffer sheet
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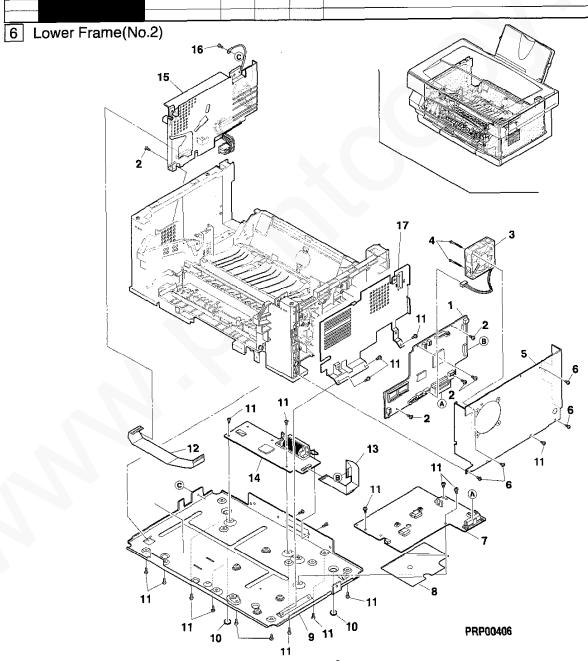


5 Lower Frame Section(No.1)



6 Lower Frame(No.2)

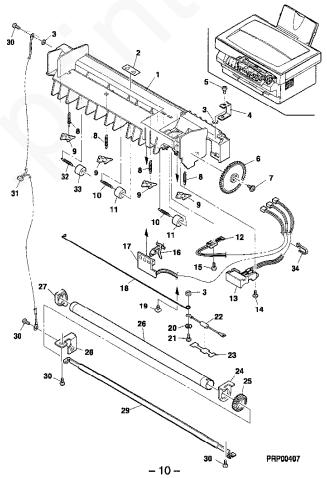
NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1			BT	N	E	MCU PWB unit
2		026E64180	AA		С	Screw (3×8)
3			AY	N	ם	Γan Motor
4				N	С	Screw (3×28)
5			AL	N	С	PWB Shield plate
6		026E6413/	AA		C	Screw (3×8)
7			BE	N_	E	High voltage PWB unit
8			AD	<u>N_</u>	C	Shield Sheet
			AQ	N	C	Bottom Plate (XE-60,XE-62)
9			AQ	N	C	Bottom Plate (XE-80,XE-82,XE-84)
10			AB		C	Rubber foot
11			AA		С	Screw (3×6)
12		160K55800	AF	N	C	Power Supply PWB FFC
13		162K50360	AG	N	С	ICU-FFC (XE-80,XE-82,XE-84)
14			CF	N_	E	ICU PWB unit (XE-80,XE-82,XE-84)
4 10		160K55740	BM	N_	E	Power Supply unit (120V series)
15		160K55750	BP	N	E	Power Supply unit (230V series)
16			AA		C	Screw (4×6K)
17			AL	<u>N</u>	C	Main PWB Shield angle
					<u> </u>	



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	Lucina	LIMIT
	Fusing	urn

NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1			AV	N	С	Fusing Cover
2			AC	_	C	H.THP Label
. 3			AC		C	Nut (M3)
4			AD		C	FU terminal
5			AA		C	Screw (3x6KS)
6			AD		O	PO idle gear
7		026E64260	AA		C	Screw (3×8X)
8			AA		С	FU separator spring
9			AF		C	Separator pawl
10			AC		С	FU roller spring
11		022E22670	AC		C	FU roller-B
12			AP		В	Thermistor
13				Z	Ë	Fuse Ass'y
14		026E6413/	AA		С	Screw (3×8)
15			AA		С	Screw (3×10)
16		011E09050	AE	N	С	PO Actuator
17			AH	N	Е	POD PWB unit
18			AD		С	FU bar
19			AA		C	Screw (3×4X)
20			AA		С	Washer (3W)
21			AB		С	Screw (3×5)
22			AQ		Α	Fuse
23			AC		С	FU sheet C
24			AE		С	FU bearing R
25			AC		С	Fusing gear (27T)
26			AW		C	FU roller
27			AB		С	FU bearing
28			AD		С	AC terminal C
29			AX		В	FU lamp (120V series)
29			AW		В	FU Lamp (230V series)
30			AA		С	Screw (3×5K)
31			AH	N	С	Lamp Hamess (120V series)
31			AG	N	С	Lamp Harness (230V series)
32			AA		С	PF guide Spring
33			AD		С	PU guide roller
34			AA		С	Wire band
			BK	N	E	Fusing unit (120V series)
901			BK	N	Ē	Fusing unit (230V series)





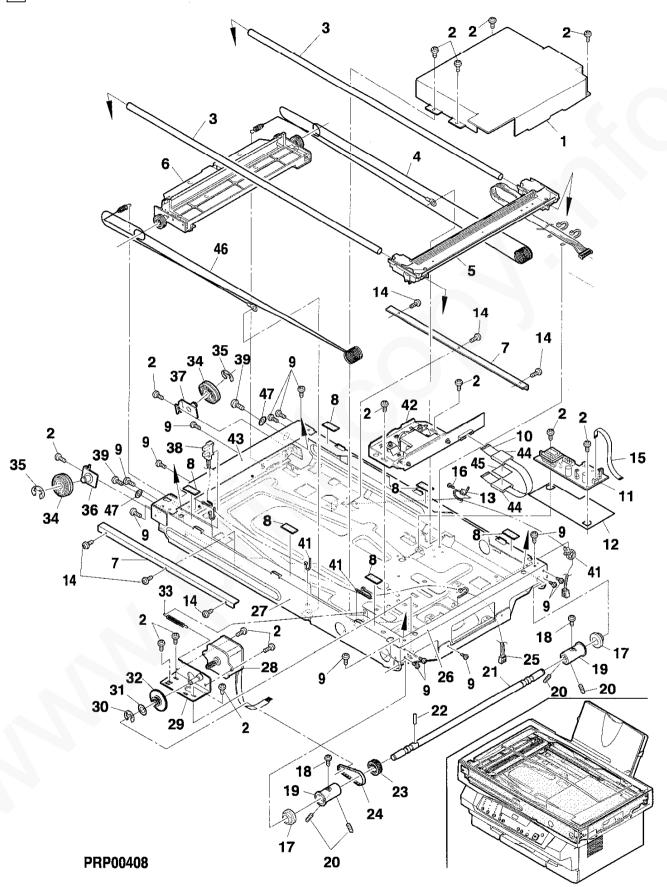


8 Scanner unit

8 8	Scanner unit	1-				
NO.	PARTS CODE	OEM CODE	PRICE	NEW MARK	PART	DESCRIPTION
1			AK	N	C	Dark Box
2			AA		C	Screw (3x6)
3				2	С	Slide Shaft
4		117K32320	AR	N	С	MB wire
5			BE	N	E	Carriage unit 1
6 7			BC AE	N N	E C	Carriage unit 2
8			AB	N	C	Guide Rail Table glass Rubber
9			AA	/N	C	Screw (3x4)
10		160K55780	AF	N	C	CCD PWB FFC
11		160K55810	BB	z	Ē	Inverter PWB unit
12			AE	N	С	PWB sheet
13			AN	N	<u>B</u>	Micro Switch unit
14 15		152P05691	AA AC	N	C	Screw (2.6×6) Inverter PWB Harness
16		132103091	AA	N	- 0	Sorew
17			AE		C	Bearing
18			AB	N	Ċ	Screw
19			AM	N	С	Winding pulley
20			AC	N	C	Screw
21				N	<u> </u>	Winding Drive Shaft
22 23			AA AG	N	C	Spring Pin Winding Drive Pulley
23		023E17760	AG AG	N N	C	MB Drive Belt
25		152P05690	AL	N		HP-SW Harness
26			AK	N	Ċ	Frame R
27			AX	N	C	Main Frame
28		127N00970	BA		В	Mirror Motor
29		028E12150	AH	N	C	Motor Fixing Plate
30 31		028E12150	AA AA		C	E type ring (4mm) Washer
32		007E59410	AH	N	Č	Mirror Motor idle Gear
33		809E18530	AC	N	Č	Belt Tension Spring
34			AG	N	С	Pulley
35		354W20952	AA		С	E type ring (5mm)
36			AG	N	C	Pulley Fixing Plate
37 38		107E07470	AG AG	N	В	Pulley Fixing Plate Photo sensor (GP1A71A1)
39		107207470	AG		C	Screw (4?x?6)
41			AA		C	Wire band (T18S)
42		062E09060	BR	N	E	Lens base unit
43			AK	N	С	Frame L
44			AM		C	Core (SSC-33.5-12)
45 46			AA AQ		C	Tape (8-25)
47			AA	N	C	MB wire B Washer
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8 Scanner unit

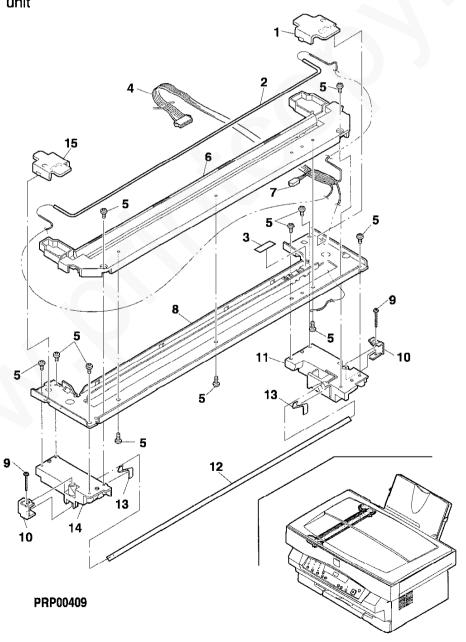




9 Carriage 1 unit

NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1			ΑE	N	С	Lamp Tarminal Protect Sheet L
2			AU	N	В	Lamp
3			AA	N	С	Protect Sheet
4			BA	N	C	Lamp Harness
5			AA		С	Screw (2x5)
6			AL	N	С	Lamp Base
7			AL		В	Photo transistor (BS520)
8			AH	N	С	Carriage 1
9				N	С	Screw (2×16KS)
10			AD	N	C	Wire Holder
11			AE	N	С	Carriage 1 base L
12		062E09070	AL	N	В	Mirror 1
13			AC	N	С	Mirror 1 Holder Spring
14			AE	N	С	Carriage 1 Base R
15			AE	N	С	Lamp Terminal Protect Sheet R
901			BE	N	E	Carriage 1 unit

9 Carriage 1 unit



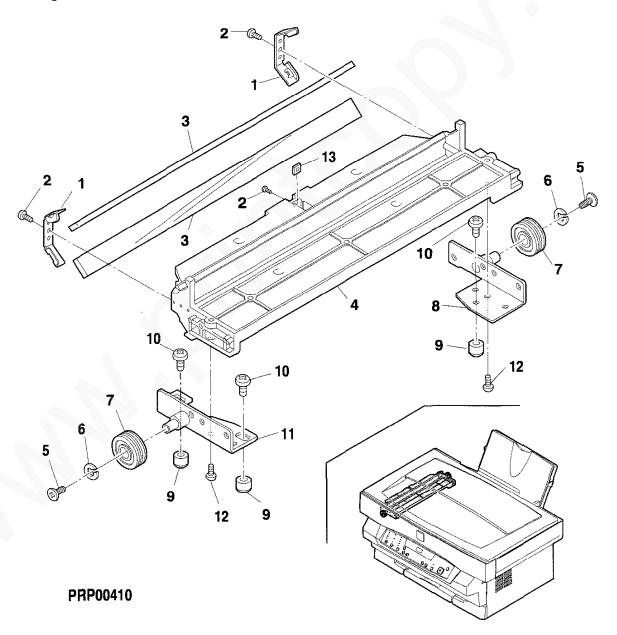




10 Carriage 2 unit

NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1			AD	N	С	2,3 Mirror Holder
2			AA		С	Screw (2×5)
Э		062009080	AN	N.	В	3rd Mirror
4			AP	N _	С	Carriage 2
5			AA		С	Screw (4x6)
- 6			AA		С	Washer
7			AG		С	W Pulley
- 8			AH	N	С	Carriage 2 Bace L
9			AF	_	С	Slider (4pcs/set)
10		026E64140	AA		С	Screw (4×6)
11			AH	N	С	Carriage 2 Base R
12			AA		C	Screw (3×8)
13			AA	N	С	Nut
901			BC	N_	E	Carriage 2 unit
					ļ	

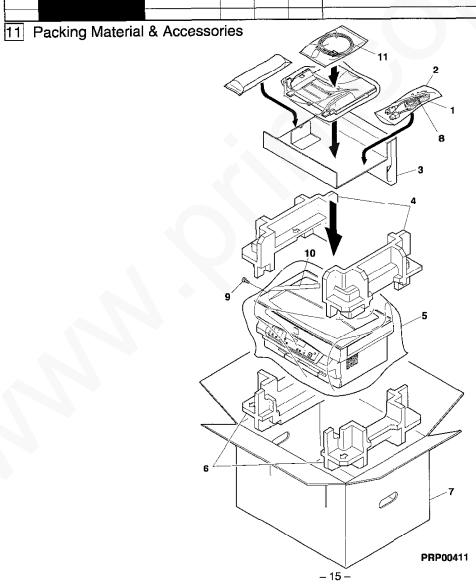
10 Carriage 2 unit





11 Packing Material & Accessories

Ī	NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
اد	1		117E19330	AQ		В	AC Cable (120V series)
7	2			AA		D	Vinyl bag (140x260mm)(120V series)
ı	3			AF	N	D	Packing add for Accessories
ţ	4		** "	AM	N	a	Packing add Upper
ı	5			AG		D	Body vinyl sheet
ı	6			AM	N	D	Packing add Lower
ı				AS	N	D	Packing Case (XE-60 U.S.A)
١				AS	N	D	Packing Case (XE-60 Europe)
١				AS	N	D	Packing Case (XE-60 other countries)
١				AS	N	D	Packing Case (XE-62 U.S.A)
١				AS	N	D	Packing Case (XE-62 Europe)
				AS	N	D	Packing Case (XE-62 other countries)
	_			AS	N	D	Packing Case (XE-80 U.S.A)
	7			AS	N	D	Packing Case (XE-80 Europe)
				AS	N	D	Packing Case (XE-80 other countries)
				AŞ.	N	D	Packing Case (XF-82 U.S.A)
ŀ				AS	N	D	Packing Case (XE-82 Europe)
Ì				AS	N	D	Packing Case (XE-82 other countries)
				AS	N	D	Packing Case (XE-84 Europe)
				AS	N	D	Packing Case (XE-84 other countries)
	8			AA		С	Cadle band (120V series)
1	9		026E72770	AC		С	Screw for scanner
ı	10			AH	N	D	Scanner Lock tag
١	11		117E19340	AY		С	Centro Cable (XE-80,XE-82,XE-84)
	101		695S01415	AC	_ N	D	Shipping Protection for CRU
					N	D	Operation manual (XE-60,62)
	102				N	D	Operation manual (XE-80,82,84)
					I		
					I		





12 MCU PWB unit

NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1			AA	IVIATIN	C		001~5
2		*	AA		č		[C006]
3			AA		С		[C007]
4			AB		С		[C008]
5			AA		C	Capacitor (35WV 10μF) [C009–1	
7			AB AA		C		[C016
8		· · · · · · · · · · · · · · · · · · ·	AA		c		[C017 1~103
9			AA		C		[C104
10			AA		Č		5~115
11			AA		С		[C116
12			AA		С	Capacitor (50WV 0.022μF)	[C117
13			AA		_c		[C118
14			AA		C		[C119
16			AA AA		<u> </u>		[C120
17			AA		Č		[C121 22,123
18			AA		Č		4-126
19			AA		С	 - ' 	27,128
20			AA		С		29,130
21			AA		С		[C131]
22			AA		С		32,133
23			AA		C		[C134
24 25			AA AA		C		[C135 36,137
26			AA		C		38,139
27			AA		Č	1 . 1	[C140
28			AA		С		11,142
29			AA		С		[C143
30			AA		C		[C144
31			AA AA		C		5~156
32			AA		C		[C157 [C159
34			AA		Č	<u> </u>	[C160
35			AA		Ċ		[C161
36			AA		С	Capacitor (50WV 4700PF)	[C162
37			AA		С		3~165
38			AA		C		8,169
39 40			AA AA		C		70,171 72,173
41			AA		Č	1	4~181
42			AA		C		2-186
43			AA		Č		[C187
44			AA		С		[C188
45			AA		С		[C189
46			AA		C		1~193
47 48			AA AA		C		[C192
49			AB		C		4~199 [C200
50			AA		C		C201
51			AA		C	 	C202
52			AA		С	Capacitor (25WV 0.10μF) [C203	5~209
53			AA		C		[C210
54			AA		C	· · · · · · · · · · · · · · · · · ·	2~214
55 56			AA		C		[C215 [C216
57			AA		C		17,218
58			AA		C		C219
59			AA		C	 	0~223
60			AA		С	Capacitor (25WV 0.10µF)	[C224
61			AA		С		[C225
62			AA		C		[C227
63 64			AA AA		C		C228
65			AA		C		9-234 [C235
66			AA		Č		[C236
67			AA		č	 	37,238
68			AA		C	Capacitor (25WV 0.10µF) [C23	39,240
69			AA		С		[C241
70			AA		C		[C243
71			AA		C		[C244
72			AC		C		[CN01
73 74			AD AB		C		[CN02 [CN03
75			AB		C		CN04
76			AB		C		[CN06
77			AA		С	Connector (3pin)	CN07
78			AE	N	С		[CN08
79			AD		<u>c</u>		[CN09
80			AB		С	Connector (4pin)	[CN10



12 MCU PWB unit

NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART	DESCRIPTION	
81			AE	N	С	Connector (5pin)	[CN11
82			AA_		С	Connector (3pin)	[CN12
83 84			AB AE		C	Connector (22pin)	[CN13
85			AG	N	Č	Connector	[CN14 [CN15
86			AB		В	Diode (1SS355)	[D001
87			AB	N	В	Diode (IN4005E)	[D002
88		• · ·	AC		В	Diode (DA204K)	[D101~104
89			AC		В	Diode (DAN217)	[D105,106
90 91			AC AB		B	Diode (DA204K) Diode (DAN202K)	[D107~111 [D112
92			AC		В	Diode (DA204K)	[D113~115
93			AB		В	Diode (1SS355)	[D117
94			AE		С	EMI filter (NFM839R02C470R101)	(EF1~3
95			AG		В	IC (M24C02WBN6)	[IC001
96 97			AN AF	N	В	IC (341256SJ12)	[IC002,3
98			AY		B	IC (M51953BL) IC (H8S/2350FP)	[IC004 [IC005
99			AD		Č	IC socket (40pin)	1C006
100			AW		В	IC (27C1024-80)	[IC006
101			BE		В	IC (HG73C025FD)	[IC008
102			AN	_ N	В	IC (341256SJ12)	[IC011,12
103			AQ AM		В	IC (SLA7027MU) IC (TC74HC244F)	[IC013 [IC101
104			AD		В	IC (TC74HC244F)	[IC101 [IC102
106			AE		В	IC (TC74HC08F1)	[IC103
107			AC		В	IC (TC74HC32AF)	[IC104
108			AT		В	IC (M66236FP)	[IC105
109			AD AC		B B	IC (NJM2903M)	[IC106
110 111			AF		В	IC (LM358PS) IC (NJM3414M)	[IC107 [IC108
112			AF		В	IC (SN74LS07NS)	[IC109
113			AQ	N	В	IC (LM7121)	[IC110
114		·	AD		В	IC (74HC4066AF)	[IC111
115			AU		В	IC (LH50506N)	[IC112
116		108N00367	AF	N	В	IC Protector (ICPN38)	[ICP1
117 118		-	AD AB		В	Coil (SBO 02SAN) Transistor (2SA1036KQRC)	[L1-5 [Q101
119			AB		C	Resistor (2W 1.0Ω ±5%)	[R001,2
120			AA		С	Resistor (1/8W 4.7KΩ ±5%)	[R101
121			AA		С	Resistor (1/16W 47KΩ ±5%)	[R102
122			AA		С	Resistor (1/16W 10KΩ ±5%)	[R103
123 124			AA AA		C	Resistor (1/16W 20Κ Ω +5%) Resistor (1/16W 10Κ Ω ±5%)	[R104 [R105,106
125			AA		C	Resistor (1/16W 1KΩ ±5%)	[R105,106
126			AA		Č	Resistor (1/16W 10KΩ ±5%)	[R110,111
127			AA		С	Resistor (1/16W 1KΩ ±5%)	[R112
128			AA		С	Resistor (1/16W 100Ω ±5%)	[R113
129			AA	NI NI	C	Resistor (1/16W 10KΩ ±5%)	[R114
130 131			AA AA	Ņ	C	Resistor (1/8W 4.3ΚΩ ±5%) Resistor (1/8W 180Ω ±5%)	R115 R116
132			AA		C	Resistor (1/16W 10Ω ±5%)	R117
133			AA		C	Resistor (1/16W 1KΩ ±5%)	R118
134			AA		С	Resistor (1/16W 9.1KΩ ±5%)	[R119
135			AA		С	Resistor (1/16W 33KΩ ±5%)	[R120
136 137			AA AA		C	Resistor (1/16W 1KΩ ±5%)	[R121
138			AA		C	Resistor (1/16W 20ΚΩ ±5%) Resistor (1/16W 910Ω ±5%)	[R122 [R123
139			AA		c	Resistor (1/16W 10KΩ ±5%)	[R124
140			AA		Č	Resistor (1/16W 100Ω ±5%)	[R125
141			AA		С	Resistor (1/16W 20KΩ ±5%)	[R126
142			AA		С	Resistor (1/16W 10KΩ ±5%)	[R127
143 144			AA AA		C	Resistor (1/16W 330Ω ±5%) Resistor (1/16W 1KΩ ±5%)	[R128 [R129
144			AA		C	Hesistor (1/16W 1832 \pm 5%) Resistor (1/16W 3.3K Ω \pm 5%)	[R130
146			AA		C	Resistor (1/16W 68Ω ±5%)	[R131
147			AA		С	Resistor (1/16W 3.3KΩ ±5%)	[R132
148			AA		C	Resistor (1/16W 10KΩ ±5%)	[R134-141
149			AA		C	Resistor (1/16W 47Ω ±5%)	[R142
150 151			AA AA		C	Resistor (1/16W 22Ω ±5%) Resistor (1/16W 2.0MΩ ±5%)	[R143 [R144
152			AA	<u> </u>	C	Resistor (1/16W 1.6KΩ ±5%)	[R145
153			AA		Č	Resistor (1/16W 10KΩ ±5%)	[R146
154			AA		Č	Resistor (1/16W 2.0MΩ ±5%)	[R147
155			AA		С	Resistor (1/16W 1.2KΩ ±5%)	[R148
156			AA		С	Resistor (1/16W 7.5KΩ ±5%)	[R149
157			AA		C	Resistor (1/16W 1.65KΩ ±1%)	R150 R151
158 159			AA AA		C	Resistor (1/16W 1K Ω ±5%) Resistor (1/16W 100 Ω ±5%)	[H151 [R152
			///\		č	Resistor (1/16W 100Ω ±5%)	[m təz



12 MCU PWB unit

NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
161			AA		С	Resistor (1/16W 47KΩ ±5%)	[R157
162			AA	N	С	Resistor (1/16W 2.4KΩ ±5%)	R158
163			AA		С	Resistor (1/16W 620Ω ±5%)	[H159,160
164			AA		С	Resistor (1/16W 0Ω ±5%)	[R161,162
65			AA		С	Resistor (1/16W 270Ω ±5%)	[R160
66			AA		C	Resistor (1/16W 10KΩ ±5%)	[R167~174
67			AA	N	C	Resistor (1/16W 2.4KΩ ±5%)	[R17!
68 69			AA AA		C	Resistor (1/16W 100Ω ±5%)	[R176
70			AA	_	C	Resistor (1/16W 750Ω ±5%) Resistor (1/16W 10KΩ ±5%)	[R177
71			AA		č	Resistor (1/16W 100Ω ±5%)	[R179 [R180
72			AA		Č	Resistor (1/16W $\Omega\Omega \pm 5\%$)	[R181
73			AA		Č	Resistor (1/16W 47K Ω ±5%)	[R182
74			AA		č	Resistor (1/16W 1KΩ ±5%)	[R183
75			AA		c	Resistor (1/16W 20KΩ ±5%)	[H184
76			AA		Ċ	Resistor (1/16W 0Ω ±5%)	[R185,186
77			AA		Ċ	Resistor (1/8W 100Ω ±5%)	[R188
8			AA		С	Resistor (1/16W 100Ω ±5%)	[R189
9			AA		С	Resistor (1/16W 1KΩ ±5%)	[R190
0			AA		С	Resistor (1/16W 680Ω ±5%)	[R191
11			AA		С	Resistor (1/16W 0Ω ±5%)	[R192
32			AA		C_	Resistor (1/16W 20KΩ ±5%)	[R193
3			AA		C	Resistor (1/16W 0Ω ±5%)	[R194
4			AA		С	Resistor (1/16W 1KΩ ±5%)	[R195
5			AA		C	Resistor (1/16W 10KΩ ±5%)	[R196
6			AA		C	Resistor (1/16W 10KΩ ±1%)	[R197,198
7			AA		C	Resistor (1/16W 10Ω ±5%)	[R199
3			AA		C	Resistor (1/16W 680Ω ±5%)	[R200
)			AA AB		В	Resistor (1/16W 0Ω ±5%)	[R201
)_			AB		В	Block resistor (47Ω×4 1/32W ±5%) Block resistor (10kΩ×4 ±5%)	[RA01 [RA02~5
-			AB		В	Block resistor (47Ω×4 ±5%) Block resistor (47Ω×4 1/32W ±5%)	[RA02~5
1			AB		В	Block resistor (10kΩ×4 ±5%)	[RA07~9
4			AB		В	Block resistor (47 Ω ×4 1/32W ±5%)	[RA10
5			AB		В	Block resistor (10kΩ×4 ±5%)	(RA11
6			AB		В	Block resistor (47Ω×4 1/32W ±5%)	[RA12
7			AB		В	Block resistor (10kΩ×4 ±5%)	[RA13,14
В			AB		В	Block resistor (47Ω×4 1/32W ±5%)	[RA15,16
9			AB		В	Block resistor (10kΩ×4 ±5%)	[RA17
0			AB		В	Block resistor (47Ω×4 1/32W ±5%)	[RA18,19
1			AB		В	Block resistor (10kΩ×4 ±5%)	[RA20
2			AB		В	Block resistor (47Ω×4 1/32W ±5%)	[RA21
13			AB		В	Block resistor (10kΩ×4 ±5%)	[RA22~24
)4			AB		В	Block resistor (47Ω×4 1/32W ±5%)	[RA25~28
)5			AB		В	Block resistor (10kΩ×4 ±5%)	[RA29
6			AB		В	Block resistor (47Ω×4 1/32W ±5%)	[RA30
7			AB		В	Block resistor (10kΩ×4 ±5%)	[RA31~34
8			AB		В	Block resistor (22Ω×4 ±5%)	[RA35,36
9			AG	N	B	Crystal	[X1
0			AP	N	В	Crystal (DL 70.04)	[X2
1			AB		В	Zener diode (RLZ2.0A)	[ZD3
,			BT	N	E	MCU PWB unit	
1			101	IN	F	INCO LAAD MIN	
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13	Operation Panel	PWB unit					
NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1			AC		В	LED (MPG3864K)	[1ENH]
2			AC		В	LED (MPG3864K)	[1RE]
3			AC		В	LED (MPG3864K)	[2ENR]
4			AC		В	LED (MPG3864K)	[2RE]
5			AC		В	LED (MPG3864K)	[AE]
6			AC		В	LED (MPG3864K)	[BPL]
7			AA		С	Capacitor (50WV 0.022µF)	[C901]
8			AB		С	Capacitor (16WV 47µF)	[C902]
9			AA		Ċ	Capacitor (50WV 0.022µF)	[C903]
10			AA	N	С	Capacitor (50WV 200pF)	[C904~906]
11			AA		С	Capacitor (25WV 0.10μF)	[C907,908]
12			AA		С	Capacitor (50WV 1000PF)	[C909~918]
13			AÇ		В	Tact Switch	[CLK]
14			AC	N	С	Connector (12pin)	[CN901]
15			AC		В	Tact Switch	[CRSK]
16			AA		В	Diode (DSS133)	[D901~D910]
17			AC		В	LED (MPG3864K)	[DATL XE-80,82,84]
18			AC		В	LED (MRV3864K)	[DPL]
19			AC		В	Tact Switch	[DZWK]



13 Operation Panel PWB unit

NO.	PARTS CODE	OEM CODE	PRICE		PART RANK	DESCRIPTION	
20			AC		В	LED (MPG3864K)	[EXD
21			AC		В	LED (MPG3864K)	[EXI
22			AC		В	Tact Switch	[EXMODI
23			AC		В	LED (MPG3864K)	[EXN
24			AC		В	Tact Switch	[EXUDA
25			AN		В	IC (LC7935)	[IC902
26			AG	N	В	IC (TC74HC151F)	[IC902
27			AC_		В	IC (MC74HC00AF)	[IC903
28			AC		В	Tact Switch	[IOUPK
29		·	AC		В	Tact Switch	[IUPk
30			AA		С	Resistor (1/8W 0Ω ±5%)	[J900~944
31			AA		C	Resistor (1/8W 0Ω ±5%)	[J946~953
32			_AA		С	Resistor (1/8W 0Ω ±5%)	[J955~966
33			AC		В	LED (MRV3864K)	[JP]
34			AC		С	Spacer	[LEDM
35			AQ		В	LED (LTC3650G01)	[LEDM
36			AC		В	Tact Switch	[MAGK
37			AC		В	LED (MPG3864K)	[ME
38			AC		В	LED (MPG3864K)	[NOF
39			AC		В	Tact Switch	OLK XE-80,82,84
40			AC		В	LED (MPG3864K)	[ONLL XE-80,82,84
41			AC		В	LED (MPG3864K)	[PE
42			AC		В	Tact Switch	[PSW
43			AD		В	Transistor (DTB113ZK)	(Q901~903
44			AA		С	Resistor (1/10W 120Ω ±5%)	[R902~918
45			AA		С	Resistor (1/10W 4.7KΩ ±5%)	[R919-926
46			AA		С	Resistor (1/10W 4.7KΩ ±5%)	[R928
47			AA		С	Resistor (1/10W 4.7KΩ ±5%)	[R930
48			AA		С	Resistor (1/10W 1KΩ ±5%)	[R932~935
49			AA		С	Resistor (1/10W 1.5K Ω ±5%)	[R936~938
50			AA		С	Resistor (1/10W 150Ω ±5%)	[R939~941
51			AA		С	Resistor (1/10W 510Ω ±5%)	[R942,943
52			AA		С	Resistor (1/10W 1KΩ ±5%)	[R944~946
53			.AA		С	Resistor (1/10W 100Ω ±5%)	[R948~9 <u>57</u>
54			AA		С	Resistor (1/10W 10KΩ ±5%)	[R962
55			AC		В	LED (MPG3864K)	[RPL
56			AC		В	LED (MRV3864K)	TPL
57			AC		В	LED (MPG3864K)	TSL
58			AC		В	LED (MPG3864K)	[ZPL
59			AC		В	Tact Switch	[ZUPK
 901			BA	N	E	Operation Panel PWB unit (XE-60,XE-62)	
301			BA	N	E	Operation Panel PWB unit (XE-80,XE-82,XE-84)	

14 ICU PWB unit(XE-80,XE-82,XE-84)

14 10	SO PWB unit(XI	E-8U, XE-82	, XE-8	4)			
NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1			AA		С	Capacitor (25WV 0.10μF)	[C201]
2			AB		С	Capacitor (10WV 47μF)	[C202]
3			AA		C	Capacitor (25WV 0.10µF)	[C203,204]
4			AC	N	С	Capacitor (50WV 1800pF)	[C205]
5			AA		C	Capacitor (50WV 47PF)	[C206]
6			AA		С	Capacitor (25WV 0.10µF)	[C207]
7			.AA		C	Capacitor (50WV 100PF)	[C208]
8			. AA		C	Capacitor (50WV 390PF)	[C209]
9			AA		C	Capacitor (50WV 100PF)	[C210]
10			AA		C	Capacitor (50WV 390PF)	[C211]
11			AA		C	Capacitor (50WV 100PF)	[C212]
12			AA		C	Capacitor (50WV 390PF)	[C213]
_13			AA		C	Capacitor (50WV 100PF)	[C214~216]
14			AA		C	Capacitor (50WV 680PF)	[C217]
15			AA		C	Capacitor (50WV 47PF)	[C218]
16			AB		С	Capacitor (50WV 0.010μF)	[C219]
17			AA		C	Capacitor (25WV 0.10µF)	[C220-232]
18			AA		C	Capacitor (25WV 0.10µF)	[C242]
19			AG		С	Connector (36pin)	[CN202]
20			AE	N.	C	Connector (20pin)	[CN203]
21			BB		В	IC (4M20SOJ-70)	[IC201]
22			AY		В	IC (SLA303T)	[IC202]
23			AC	N	C	Coil	[L202,203]
24			AC	N	C	Coil	[L207,208]
25			AC	N	C	Coil	[L214~216]
26			AC	N	C	Coil	[L219~227]
27			AC		С	Coil	[L228]
28			AC	N	С	Coil	[L233]
29			AC	N	С	Coil	[L235,236]





32 AA C Resistor (1/10W 220Ω ±5%) 33 AA C Resistor (1/10W 10KΩ ±5%) 34 AA C Resistor (1/10W 22KΩ ±5%) 35 AA C Resistor (1/10W 1.2KΩ ±5%) 36 AA C Resistor (1/10W 1.2KΩ ±5%) 37 AA C Resistor (1/10W 220Ω ±5%) 38 AA C Resistor (1/10W 220Ω ±5%) 40 AA C Resistor (1/10W 1.2KΩ ±5%) 41 AA C Resistor (1/10W 1.2KΩ ±5%) 42 AA C Resistor (1/10W 220Ω ±5%) 43 AA C Resistor (1/10W 1.2KΩ ±5%) 44 AA C Resistor (1/10W 1.2KΩ ±5%) 45 AA C Resistor (1/10W 1.2KΩ ±5%) 46 AA C Resistor (1/10W 1.2KΩ ±5%) 47 AA C Resistor (1/10W 1.2KΩ ±5%) 48 AA C Resistor (1/10W 1.2KΩ ±5%) 49 AA C Resistor (1/10W 220Ω ±5%) 50 AA C Resistor (1/10W 220Ω ±5%)	[L241 [R201~208 [R209
32 AA C Resistor (1/10W 220Ω ±5%) 33 AA C Resistor (1/10W 10KΩ ±5%) 34 AA C Resistor (1/10W 12KΩ ±5%) 35 AA C Resistor (1/10W 12KΩ ±5%) 36 AA C Resistor (1/10W 230K ±5%) 38 AA C Resistor (1/10W 220Ω ±5%) 39 AA C Resistor (1/10W 220Ω ±5%) 41 AA C Resistor (1/10W 12KΩ ±5%) 42 AA C Resistor (1/10W 12KΩ ±5%) 42 AA C Resistor (1/10W 12KΩ ±5%) 44 AA C Resistor (1/10W 220Ω ±5%) 44 AA C Resistor (1/10W 220Ω ±5%) 44 AA C Resistor (1/10W 220Ω ±5%) 45 AA C Resistor (1/10W 220Ω ±5%) 45 AA C Resistor (1/10W 220Ω ±5%) 46 AA C Resistor (1/10W 220Ω ±5%) 47 AA C Resistor (1/10W 220Ω ±5%) 48 AA C Resistor (1/10W 12KΩ ±5%)	[R209
33 AA C Resistor (1/10W 10KΩ ±5%) 34 AA C Resistor (1/10W 2.2KΩ ±5%) 35 AA C Resistor (1/10W 3.3KΩ ±5%) 36 AA C Resistor (1/10W 3.3KΩ ±5%) 37 AA C Resistor (1/10W 1.2KΩ ±5%) 38 AA C Resistor (1/10W 1.2KΩ ±5%) 40 AA C Resistor (1/10W 220Ω ±5%) 41 AA C Resistor (1/10W 220Ω ±5%) 42 AA C Resistor (1/10W 220Ω ±5%) 43 AA C Resistor (1/10W 220Ω ±5%) 44 AA C Resistor (1/10W 1.2KΩ ±5%) 44 AA C Resistor (1/10W 1.2KΩ ±5%) 45 AA C Resistor (1/10W 1.2KΩ ±5%) 46 AA C Resistor (1/10W 220Ω ±5%) 47 AA C Resistor (1/10W 220Ω ±5%) 48 AA C Resistor (1/10W 1.2KΩ ±5%) 49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 1.2KΩ ±5%) <td></td>	
34 AA C Resistor (1/10W 2.2KΩ ±5%) 35 AA C Resistor (1/10W 1.2kΩ ±5%) 36 AA C Resistor (1/10W 1.2kΩ ±5%) 37 AA C Resistor (1/10W 1.2kΩ ±5%) 38 AA C Resistor (1/10W 1.2kΩ ±5%) 40 AA C Resistor (1/10W 1.2kΩ ±5%) 41 AA C Resistor (1/10W 1.2kΩ ±5%) 41 AA C Resistor (1/10W 220Ω ±5%) 43 AA C Resistor (1/10W 220Ω ±5%) 43 AA C Resistor (1/10W 220Ω ±5%) 44 AA C Resistor (1/10W 220Ω ±5%) 45 AA C Resistor (1/10W 1.2kΩ ±5%) 46 AA C Resistor (1/10W 1.2kΩ ±5%) 47 AA C Resistor (1/10W 1.2kΩ ±5%) 48 AA C Resistor (1/10W 220Ω ±5%) 49 AA C Resistor (1/10W 220Ω ±5%) 50 AA C Resistor (1/10W 1.2kΩ ±5%) 51 AA C Resistor (1/10W 1.2kΩ ±5%) <td>CD046</td>	CD046
35 AΛ C Resistor (1/10W 1.2KΩ ±5%) 36 AA C Resistor (1/10W 3.3KΩ ±5%) 37 AA C Resistor (1/10W 1.2KΩ ±5%) 38 AA C Resistor (1/10W 22Ω ±5%) 39 AA C Resistor (1/10W 1.2KΩ ±5%) 40 AA C Resistor (1/10W 1.2KΩ ±5%) 41 AA C Resistor (1/10W 1.2KΩ ±5%) 42 AA C Resistor (1/10W 1.2KΩ ±5%) 43 AA C Resistor (1/10W 1.2KΩ ±5%) 44 AA C Resistor (1/10W 1.2KΩ ±5%) 45 AA C Resistor (1/10W 1.2KΩ ±5%) 46 AA C Resistor (1/10W 1.2KΩ ±5%) 47 AA C Resistor (1/10W 1.2KΩ ±5%) 48 AA C Resistor (1/10W 1.2KΩ ±5%) 49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 1.2KΩ ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 1.2KΩ ±5%	[R210
36 AA C Resistor (1/10W 3.3KΩ ±5%) 37 AA C Resistor (1/10W 1.2KΩ ±5%) 38 AA C Resistor (1/10W 2.2ΩΩ ±5%) 39 AA C Resistor (1/10W 1.2KΩ ±5%) 40 AA C Resistor (1/10W 2.2ΩΩ ±5%) 41 AA C Resistor (1/10W 2.2ΩΩ ±5%) 42 AA C Resistor (1/10W 2.2ΩΩ ±5%) 43 AA C Resistor (1/10W 2.2ΩΩ ±5%) 44 AA C Resistor (1/10W 1.2KΩ ±5%) 44 AA C Resistor (1/10W 2.2ΩΩ ±5%) 45 AA C Resistor (1/10W 1.2KΩ ±5%) 46 AA C Resistor (1/10W 1.2KΩ ±5%) 47 AA C Resistor (1/10W 1.2KΩ ±5%) 48 AA C Resistor (1/10W 1.2KΩ ±5%) 49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 1.2KΩ ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 1.2KΩ ±	(R211
AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 2.2ΩΩ ±5%) AA C Resistor (1/10W 2.2ΩΩ ±5%) AA C Resistor (1/10W 2.2ΩΩ ±5%) AA C Resistor (1/10W 2.2ΩΩ ±5%) AA C Resistor (1/10W 2.2ΩΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 2.2ΩΩ ±5%) AA C Resistor (1/10W 2.2ΩΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%)	[R212
38 39 AA C Resistor (1/10W 220Ω ±5%) 40 AA C Resistor (1/10W 220Ω ±5%) 41 AA C Resistor (1/10W 1.2KΩ ±5%) 42 AA C Resistor (1/10W 220Ω ±5%) 43 AA C Resistor (1/10W 1.2KΩ ±5%) 44 AA C Resistor (1/10W 1.2KΩ ±5%) 45 AA C Resistor (1/10W 220Ω ±5%) 46 AA C Resistor (1/10W 220Ω ±5%) 47 AA C Resistor (1/10W 1.2KΩ ±5%) 48 AA C Resistor (1/10W 1.2KΩ ±5%) 49 AA C Resistor (1/10W 220Ω ±5%) 50 AA C Resistor (1/10W 220Ω ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 1.2KΩ ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1.2KΩ ±5%) 56 AA C	(R213
AA	(R214~216
AA C Resistor (1/10W 220Ω ±5%) 41 AA C Resistor (1/10W 1.2KΩ ±5%) 42 AA C Resistor (1/10W 220Ω ±5%) 43 AA C Resistor (1/10W 1.2KΩ ±5%) 44 AA C Resistor (1/10W 220Ω ±5%) 45 AA C Resistor (1/10W 1.2KΩ ±5%) 46 AA C Resistor (1/10W 220Ω ±5%) 47 AA C Resistor (1/10W 220Ω ±5%) 48 AA C Resistor (1/10W 1.2KΩ ±5%) 49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 1.2KΩ ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 1.2KΩ ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 1.2KΩ ±5%) 55 AA C Resistor (1/10W 1.2KΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R217
AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%)	[R218
AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%)	[R219
43 AA C Resistor (1/10W 1.2KΩ ±5%) 44 AA C Resistor (1/10W 220Ω ±5%) 45 AA C Resistor (1/10W 1.2KΩ ±5%) 46 AA C Resistor (1/10W 220Ω ±5%) 47 AA C Resistor (1/10W 1.2KΩ ±5%) 48 AA C Resistor (1/10W 220Ω ±5%) 49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 220Ω ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 1.2KΩ ±5%) 53 AA C Resistor (1/10W 220Ω ±5%) 54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1.2KΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R220
AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%)	[R221
AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 220Ω ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%) AA C Resistor (1/10W 1.2KΩ ±5%)	[R222
AA C Resistor (1/10W 220Ω ±5%) 47 AA C Resistor (1/10W 1.2KΩ ±5%) 48 AA C Resistor (1/10W 220Ω ±5%) 49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 1.2KΩ ±5%) 51 AA C Resistor (1/10W 220Ω ±5%) 52 AA C Resistor (1/10W 1.2KΩ ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 1.2KΩ ±5%) 55 AA C Resistor (1/10W 1.2KΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R223
AA C Resistor (1/10W 1.2KΩ ±5%) 48 AA C Resistor (1/10W 220Ω ±5%) 49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 220Ω ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 1.2KΩ ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 1.2KΩ ±5%) 55 AA C Resistor (1/10W 1.2KΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R224
48 AA C Resistor (1/10W 220Ω ±5%) 49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 220Ω ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 1.2KΩ ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1.2KΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R225
49 AA C Resistor (1/10W 1.2KΩ ±5%) 50 AA C Resistor (1/10W 220Ω ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 220Ω ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1.2KΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R226
50 AA C Resistor (1/10W 220Ω ±5%) 51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 220Ω ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1MΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 1.2KΩ ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R227
51 AA C Resistor (1/10W 1.2KΩ ±5%) 52 AA C Resistor (1/10W 220Ω ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1ML ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 220Ω ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R228
52 AA C Resistor (1/10W 220Ω ±5%) 53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1MΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 220Ω ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	(R229
53 AA C Resistor (1/10W 1.2KΩ ±5%) 54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1MΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 220Ω ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	(R230
54 AA C Resistor (1/10W 220Ω ±5%) 55 AA C Resistor (1/10W 1MΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 220Ω ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R231
AA C Resistor (1/10W 1MΩ ±5%) 56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 220Ω ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R232
56 AA C Resistor (1/10W 1.2KΩ ±5%) 57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 220Ω ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R233
57 AA C Resistor (1/10W 1.2KΩ ±5%) 58 AA C Resistor (1/10W 220Ω ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R234
58 AA C Resistor (1/10W 220Ω ±5%) 59 AA C Resistor (1/10W 1.2KΩ ±5%)	[R235-248
59 AA C Resistor (1/10W 1.2KΩ ±5%)	[H250~252
	[R253,254
60 AA C Besistor (1/10W 220Q ±5%)	[R255,256
	[R257,258
61 AA C Resistor (1/10W 1.2KΩ ±5%)	[R259,260
62 AA C Resistor (1/10W 220Ω ±5%)	[R261,262
63 AA C Resistor (1/10W 1.2KΩ ±5%)	[R263,264
64 AA C Resistor (1/10W 220Ω ±5%)	[R265,266
65 AH B Crystal (35.5721237MHz)	[X201
901 CF N E ICU PWB unit (XE-80,XE-82,XE-84)	
	

15 Power Supply unit

L	10 1	ower Supply ur	IIL				<u> </u>
	NO.	PARTS CODE	OEM CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
Δ	1			AE		Α	Fuse (125V/5A)(100V series)
<u>^</u> <u>^</u> <u>^</u>						Α	Fuse (250V/3.15A)(200V series)
Δ	2			AD		Α	Fuse (125V/10A)(100V series)
4						A	Fuse (240V/5A)(200V series)
+	901		160K55740	BM	N	E	Power Supply unit (120V series)
L	901		160K55750	BP	N	E	Power Supply unit (230V series)
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■ Index

■ index					
PARTS CODE	OEM CODE	NO.	PRICE	NEW	PART
		1.10.	RANK	MARK	RANK
	802E00980	1- 12	AT	N	С
		1- 12	AT	N	Č
		1-502	BA		Ē
		1-502	BA	N	E
		10- 8	AH	N	C
	062E09060	10- 11	AH	N	<u>c</u>
	002203000	8- 42 4- 9 01	BR	N N	<u> </u>
		4-901	BV	N	E
		7- 13		N	Ē
		8- 36	AG	N	č
		8- 37	AG	N	С
		8- 29	AH	N	C
		5- 10	AH	N	<u> </u>
	·	1- 11 2-901		N N	<u> </u>
		1- 11		N	゠
		2-901		N	Ē
		1- 11		N	E
		2-901		N	E
		1- 11		<u>N</u>	<u> </u>
	053E06010	2-901	BK	N	<u> </u>
	053E06010	1- 11 2-901	BK	N N	E
		1- 11		N	— <u>E</u> —
		2-901		N	Ē
		1- 11		N	E
		2-901]	N	E
		1- 11		N	E
		2-901 1- 11		N N	Ξ
		2-901		N	E
		4- 30	AQ	N	E
	1	7- 17	AH	N	Ē
		6- 14	CF	N	E
		14-901	CF	N	E
	ļ	6- 7	BE	N	E
		2- 1 13-901	BA BA	N	E
		2- 1	BA	N	E
		13-901	BA	N	Ē
	160K55740	6- 15	ВМ	N	Ē
	160K55740	15-901	ВМ	N	E
	160K55750	6- 15	BP	N	E
	160K55750	15-901	BP	N	_ <u>E</u> _
	ļ	6- 1 12-901	BT :	N	Ē.
		10- 9	AF	N.	E
		8- 5	BE	N	Ē
		9-901	BE	N	Ē
		8- 6	BC	N	E
		10-901	BC	N	E
		1-501	AU	N i	E
		8- 13	AN	N	В
		4- 10	AF	+	С
	152P05690	8- 25	AL	N :	Č
		9- 4	BA	N	C
	160K55780	8- 10	AF	N	C
	152P05691	8- 15	AC	N	С
	160K55790	2- 2 7- 31	AK	N I	Č
		7- 47 1	AH	N	C
			A.C	NI I	_
	162K50360	7- 31	AG AG	N	C
N	162K50360 160K55800		AG	N	C
	160K55800	7- 31 6- 13		N	
		7- 31 6- 13 6- 12 5- 22 8- 11	AG AF BB	N N N	C C m m
	160K55800	7- 31 6- 13 6- 12 5- 22 8- 11 3- 19	AG AF BB BK	N N N N	00 11 11 11
	160K55800	7- 31	AG AF BB BK BK	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	m m m m
	160K55800	7- 31	AG AF BB BK BK BK	N N N N N	пшшшш
	160K55800	7- 31	AG AF BB BK BK	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	m m m m
	160K55800	7- 31	AG AF BB BK BK BK BK	N N N N N N	
	160K55800	7- 31	AG AF BB BK BK BK	N N N N N	ш ш ш ш ш ш
	160K55810 160K55810 802E00990	7- 31 6- 13 6- 12 5- 22 8- 11 3- 19 7-901 3- 19 7-901 1- 6 1- 6 1- 14	AG AF BB BK BK BK AZ AV AZ	N N N N N N N N N N N N N N N N N N N	
	160K55800 160K55810	7- 31 6- 13 6- 12 5- 22 8- 11 3- 19 7-901 3- 19 7-901 1- 6 1- 14 1- 14	AG AF BB BK BK BK BK AZ AV AZ AV	N N N N N N N N N N N N N N N N N N N	
	160K55810 160K55810 802E00990	7- 31 6- 13 6- 12 5- 22 8- 11 3- 19 7-901 3- 19 7-901 1- 6 1- 6 1- 14	AG AF BB BK BK BK AZ AV AZ	N N N N N N N N N N N N N N N N N N N	

PARTS CODE	OEM CODE	NO.	PRICE	NEW	PART
		2- 5	RANK	MARK N	RANK
		2- 5	ÂÜ	N	Č
		1- 16	AL	N	С
	_802E01020	1- 16	AK	N	C
	802E01030	1- 10	AL	N	_ <u>c</u>
	302201030	1- 10 1- 23	AK AV	N N	C
		1- 23	AV	N	c
		6- 10	AB		C
		0 0	40	61	
		2- 8 2- 8	AR AR	N	C
		2- 8	AR	N	č
		2- 8		N.	C
	··· <u>·</u>	2- 8	AR	N	_ C
	003N00673	2- 7	AF		C
	003N00669	2- 6	AF	N	Ċ
		2- 9	AG	N	C
		2- 10	AK	N	<u> </u>
		6- 17	ĀL.	<u>N</u>	C
		11- 8	AA		С
		7- 34	AA		C
	022E22660	8- 41 4- 18	AA		- C
		9- 11	AE	N	Ċ
		9- 14	ΑE	N	_c_
		9- 6	AL AC	N	_ <u>c</u>
		4- 16 9- 10	AC .	N	C
		10- 1	AD	N .	C
		8- 27	AX	_ N	C
		5- 39 8- 26	BB	N N	C .
		8- 43	AK	N .	Ċ
		2- 3	AP	N .	С
		2- 3 3- 10	AP AD	N	C
	015E67270	5- 35	AE		C
		4- 31	AC	N	Č
		4- 9	AF		C
	015E72570	5- 7 5- 49	AK AG	N N	C
		6- 9	AQ	N N	_ C
		6- 9	AQ	N	C
		1- 1 8- 7	AK AE	N	C C
	-	o- 7 1- 2	AQ	14	Ç
	050E15070	1- 8	AM	N	С
	050E15080	1- 9	AN	N	C
		3- 20 7- 21	AD AB		C
	026E46000	4- 13	AA		
		10- 5	AA		C
	026E72770	7- 19 11- 9	AA AC		C
	026E72690	5- 46	AC _	N	Ċ
		8- 20	AC	N	С
		8- 18	AB	N	C
		8- 16 1- 7	AA	_N	C C
		10- 13	AA	N	С
		4- 22	AC		С
		4- 23	AC AC		C C
			MI .		Ü
		4- 24 5- 14			С
		5- 14 3- 15	AA .		Ċ
		5- 14	AA		
		5- 14 3- 15 8- 31	AA AA AA		c
		5- 14 3- 15	AA .	N N	Ç
		5- 14 3- 15 8- 31 1- 22 5- 48 5- 45	AA AA AA AE AF AF		000
		5- 14 3- 15 8- 31 1- 22 5- 48 5- 45 3- 17	AA AA AE AF AF AB	N	0000
		5- 14 3- 15 8- 31 1- 22 5- 48 5- 45 3- 17 5- 11	AA AA AE AF AF AB AC	N	00000
		5- 14 3- 15 8- 31 1- 22 5- 48 5- 45 3- 17 5- 11 5- 37 4- 6	AA AA AE AF AF AB AC AC	N	
	011E07890	5- 14 3- 15 8- 31 1- 22 5- 48 5- 45 3- 17 5- 11 5- 37 4- 6 4- 4	AA AA AA AE AF AF AB AC AC AE AC	N	
		5- 14 3- 15 8- 31 1- 22 5- 48 5- 45 3- 17 5- 11 5- 37 4- 6 4- 4 5- 16	AA AA AA AF AF AB AC AC AC AC	N N	
	011E07890 011E09040 011E09050	5- 14 3- 15 8- 31 1- 22 5- 48 5- 45 3- 17 5- 11 5- 37 4- 6 4- 4	AA AA AA AE AF AF AB AC AC AE AC	N	





DADTO CODE	0514000=		PRICE	NEW	PART
PARTS CODE	OEM CODE	NO.	RANK		
	011E09060	5- 27	AD	N	C
	011E09060	5- 15 3- 4	AG AG	N N	<u>C</u>
	120E19140	<u>1</u> - 15	AD	N N	C
		9- 8	AH	N	С
		10- 4	AP	N	C
		5- 29 4- 15	AB AA		C
		5- 6	AB		C
		4- 2	AB		C
		4- 14 5- 8	AB AD		C
		5- 38	AB		
		5- 23	AB		Ç
	B00E10E10	5- 12	AB	<u>N</u>	_ <u>C</u>
	809E18510 809E18520	5- 50 5- 47	AB AB	N N	C
		5- 13	AB		C
		5- 26	AC		С
	809E14150	9- 13	AC AC	N	<u>C</u>
	JUSE 14 150	4- 20 3- 3	AC AA		<u>C</u>
		7- 8	AA		c
	00051055	7- 32	AA		С
	809E18530	8- 33 7- 10	AC	N	<u>c</u>
		7- 10	AC_		С
	023E17760	8- 24	AG	N	С
		7- 24	AE		С
		8- 17 7- 27	AE AB		C
	013E14310	7- 27 5- 4	AC		C
	013E14320	5- 2	AC		C
	013E14330	5- 43	AF		0.0
		3- 12 3- 13	AC AD		C
		3- 13	AC	•	C
	007E55490	3- 14	AC		С
	007E55480	3- 16	AC		C
	007E55460	4- 12 7- 25	AE_ AC	·	C
	L	3- 7	AC		C
		3- 5	AC		С
	007E55470	5- 5	AC		C
		3- 18 3- 6	AE AD		<u> </u>
		7- 6	AD		c
	007E59410	8- 32	AH	N	С
	007E59420	5- 32	AE	N	c
		3- 2 10- 7	AG AG	N	C
		8- 23	AG	N	č
		8- 19	AM	N	С
		8- 34	AG	N	C
	022E23300	7- 26 5- 33	AW AG	N	C C
	022E22670	7- 11	AC	1 W	$\stackrel{\smile}{\sim}$
	0005000	5- 1	_AW		С
	022E22690	5- 44	AY		Č
	022E22650	4- 17 7- 33	AR AD		C C
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		7- 18 8- 1	AD AK	N	C
		5- 28	AA		Č.
		4- 32	AK	N .	С
		3-8 7-1	AD	N	C
		7- 1 5- 36	_AV AM	N	C
	038E22360	1- 3	AG	N	č
	090E02150	1- 25	AX	N .	В
		8- 8	AB	N N	č
		9- 1 9- 15	AE AE	N N	C
	062E09070	9- 12	. AL	N	В
	062E09080	10- 3	AN	N	В
		5- 51	AB		Č
	016E14120	4- 29 4- 21	AB .		C
		- 4 1	70		

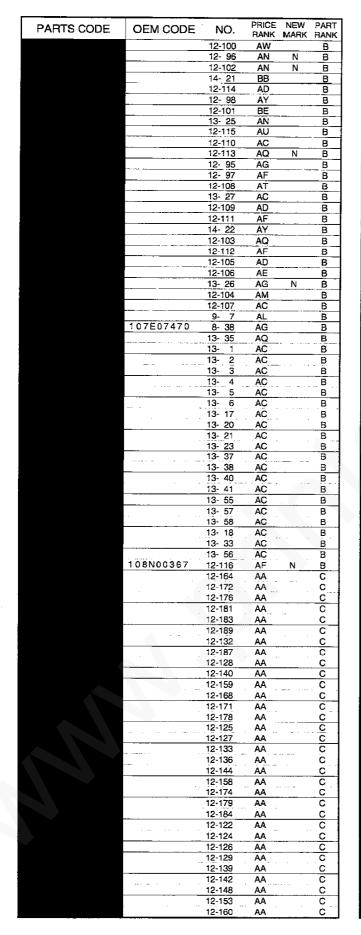
PARTS CODE	OEM CODE	NO.	PRICE RANK	NEW MARK	PART RANK
	016E14130	4- 19	AC	WILLIA!	C
		7- 23	AC		C
		4- 5	AF		c_
		1- 17 6- 8	AG	N N	<u> </u>
		6- <u>8</u> 8- 12	AD AE	<u>N</u>	C
		9- 3	AA	N N	c
		5- 9	AC		C
		1- 24	AT	N	С
		2- 11	AF	N	<u> </u>
		3- 21 6- 5	AD AL	N	C
		13- 34	AC		Č
		4- 26	AC		C
		1- 21	AN		С
		7- 9	AF		c_
	117K32320	8- 45 8- 4	AA AR	N/	C
	117/102520	8- 46	AQ	N N	C
	117E19330	11- 1	AQ		В
		12- 73	AD		C
		12- 77 12- 82	AA		C
		12- 82 12- 75	AA AB		C
	·	12- 76	AB AB		0
		12- 74	AB		C
		12- 83	AB		C .
		12- 81	AE	N	C
		12- 79 12- 80	AD AB		. C
		12- 72	AC		č
		13- 14	AC	N	C
		12- 84	ΑE		Ċ
		14- 19	AG		C
		12- 78 14- 20	AE AE	N	C
	٠	12- 85	AG	N .	č
	117E19340	11- 11	AY		č
		15- 2	-		Α
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		15- 2 15- 1	AD AE		_A
		7- 22	AQ		A A
		5- 25	AE		- 6 · ·
		7- 4	AD		c
		7- 28	AD		<u>c</u>
		5- 20 12- 99	AD		Č
		13- 13	AD AC		В
		13- 15	AC		В
		13- 19	AC		В
		13- 22	AC		В
		13- 24	_AC		В
		13- 28	AC		B
		13- 29 13- 36	AC AC		<u>В</u> В
	·	13- 39	AC		В
		13- 42	AC		В
	· · · · · · · · · · · · · · · · · · ·	13- 59	AC		В
		12 04	A.		
		12- 94 14- 27	AE AC		C
		12-117	AD		č
		8- 44	AM		
			Aivi		С
		4- 28	AH		С
		4- 28 14- 65	AH AH	N .	C B
		4- 28 14- 65 12-210	AH AH AP	N N	C B B
		4- 28 14- 65	AH AH	N N	C B
		4- 28 14- 65 12-210 12-209 7- 12 14- 23	AH AP AG AP AC		С В В В
		4- 28 14- 65 12-210 12-209 7- 12 14- 23 14- 24	AH AP AG AP AC AC	N N N	С В В В С С
		4- 28 14- 65 12-210 12-209 7- 12 14- 23 14- 24 14- 25	AH AP AG AP AC AC	N N N	С В В В С С С
		4- 28 14- 65 12-210 12-209 7- 12 14- 23 14- 24 14- 25 14- 26	AH AP AG AP AC AC AC	N N N N	B B C C C C
		4- 28 14- 65 12-210 12-209 7- 12 14- 23 14- 24 14- 25 14- 26	AH AP AG AP AC AC AC AC	N N N N N	C B B B C C C C C
		4- 28 14- 65 12-210 12-209 7- 12 14- 23 14- 24 14- 25 14- 26	AH AP AG AP AC AC AC	N N N N	B B C C C
		4- 28 14- 65 12-210 7- 12 14- 23 14- 24 14- 25 14- 26 14- 28 14- 29 14- 30 7- 29	AH AH AP AG AP AC AC AC AC AC AC AC AC AC	N N N N N	C B B B C C C C C C C B
		4- 28 14- 65 12-210 12-209 7- 12 14- 23 14- 24 14- 25 14- 26 14- 28 14- 29 14- 30 7- 29 7- 29	AH AH AP AG AP AC AC AC AC AC AC AC AC AC AC AC AC AC	N N N N N N	C B B B C C C C C C B B
	127E11880	4- 28 14- 65 12-210 7- 12 14- 23 14- 24 14- 25 14- 26 14- 28 14- 29 14- 30 7- 29	AH AH AP AG AP AC AC AC AC AC AC AC AC AC	N N N N N	C B B B C C C C C C C B



PARTS CODE	OEM CODE	NO.	PRICE	NEW	PART
	127N00970	8- 28	RANK	MARK	RANK B
		6- 3	AY	N	В
		12-191	AB		8
		12-193	AB		В
		12-195	AB		В
		12-197	AB		В
		12-199	AB		В
		12-201	AB		В
		12-203	AB	I	B
		12-205	AB		В
		12-207	AB		В
	·	12-208 12-190	AB		_ <u>B</u> _
		12-190	AB AB		B
		12-194	AB		В
		12-196	AB		В
		12-198	AB		B
		12-200	AB		В
		12-202	AB		В
		12-204	AB		В
		12-206	AB		В
		4- 1	AN		В
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		11- 4	AM	N.	_ <u>D</u>
		11- 6	AM	N N	D
	695501415	11- 3 11-101	AF AC	N +	믓
		11- 7	AS	N N	D
		11- 7	AS	N i	D
		11- 7	AS	N	
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		11- 7	AS	N	5
		11- 7	AS	N	Ď
		11- 7	AS	N	D
		11- 7	AS	N	D
		11- 7	AS :	N	D
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		11- 7 11- 7	AS :	N	<u> </u>
	-	11- 7	AS :	N N	D
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	B91E00470	1- 18	AE	- +	С
		11-102	√	N	Ď
		11-102		N	D
		1- 19	AC		C
	:	7- 2	AC		С
		1- 27	AH	N	С
	891E75440	1- 26	AH		С
	,	1- 20	AD		C
	891E27220	3 23	AC		č
		1- 28 11- 10	AC :	N.	č
		יו -יי	AH	N	D
		11- 5	AG	i	_ I
		. 1- 3	70		<u>D</u>
		12- 25	AA	;	C I
		12- 19	AA I	- 	č
	1	12- 24	AA		Č
		12- 28	AA	-	č
		12- 31	AA		Č
		12- 34	AA		С
	1	12- 39	AA	T	С
		12- 41	AA		С
		12- 71	AA	į –	Ç [
		12- 44	AA	ļ	c
		12- 20 12- 70	AA	!	<u>c</u>
		12- 70 14- 7	AA	İ	Č
		14- 7	AA		<u>ç</u>
		14- 11	AA	-	c l
		14- 13	AA		c
		14- 4	AC	N	č
		13- 10	AA	N	č
		14- 8	AA		č
		14- 10	AA	أ	C
		14- 12	AA		C
		4- 5	AA		С
		14- 15 14- 14	AA	;	Ç
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PARTS CODE	OEM CODE	NO.	PRICE	NEW	PAR
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		14- 2 12- 1	AB AA		_ <u>c</u>
		12- 3	ĀĀ		<u>C</u>
		12- 2	AA		
		12- 5	AA		C
		12- 7	AA		С
		12- 6	AB		C
		12- 4 13- 8	AB AB		0
		12- 9	AA		C
		12- 11	AA		Č
		12- 14	AA		c
		12- 16	AA		С
		12- 18	AA		C
		12- 22 12- 30	AA AA		C
		12 32	AA AA		C
		12- 35	AA	_	c
		12- 37	AA		č
		12- 38	AA		С
		12- 40	AA		С
		12- 42	AA		Č
		12- 45	AA AA		_ <u>c</u> _
		12- 48	AA AA		C
		12- 52	ĀĀ		č
		12- 54	AA		С
		12- 58	AA		Ç
		12- 60	AA .		Ç
		12- 65 12- 68	AA AA		Ċ
		12- 8	AA		Ċ
		12- 10	AA		č
		12- 13	AA		Ç
		12- 15	AA		C
		12- 21	. AA		C
		12- 26 12- 33	AA AA		C
		12- 57	AA		C
		12- 59	AA	•	č
		12- 62	AA		Č
		12- 64	AA		С
		12- 67	AA .		Ç
		12- 50 12- 55	AA AA		C
		12- 63	AA		-C -
		12- 69	AA		Č
		12- 49	AB		Č
		12- 56	AB		Ç
		12- 36	. AA .		C
		13- 11 14- 1	AA AA		0
		14- 3	AA AA		C C
		14- 6	AA		Ç
		14- 17	. AA		C
		14- 18	AA		C C
		13- 12	AA		
		14- 16 12- 12	AB		C
		12- 23	AA		c
		12- 29	AA		С
		12- 46	AA		С
		13- 7	AA		С
		13- 9	AA		00
		12- 17	AA .		C
		12- 27 12- 43	AA AA		C
	<u> </u>	12- 51	ĀĀ		C C
		12- 53	AA		С
		12- 61	AA		C
		12- 66	AA		
		12- 86	AB		B
		12- 93 12- 88	AB AC		B
		12- 88	AC		B
		12- 92	AC		В
		12- 91	AB		В
		12- 89	AC		В
		13- 16	AA		B
		12- 87 12-211	AB AB	Ν	В
		16-611	AB	_	В





DADTO CODE	OFM CODE	NO	PRICE	NEW	PART
PARTS CODE	OEM CODE	NO.	RANK	MARK	RANK
		12-166 12-170	AA		C
		12-170	AA AA		C
		12-155	AA		č
		12-152	AA		С
		12-123	AA_		C
		12-137 12-141	AA AA		C
		12-175	AA		C
		12-182	AA		С
		12-151 12-154	AA AA		<u> </u>
		12-154	AA AA		C
		12-162	AA	N	C
		12-167	AA	N	С
		12-165 12-143	AA		<u> </u>
		12-143	AA AA		C
		12-147	AA		Ċ
		12-135	AA		С
		12-149	AA		_ <u>c</u>
		12-121 12-161	AA AA		
		12-173	AA		<u>c</u>
		12-163	AA		Č
		12-146	AA_		C
		12-180 12-188	AA AA		C
		12-169	AA		c
		12-156	AA		С
		12-138	AA		<u> </u>
		12-134 12-119	AA		C
		13- 30	AA		č
		13- 31	AA		C
		13- 32	<u>AA</u>		<u>c</u>
		12-177 12-131	AA .		C
		12-130	AA	N	Č
		12-120	AA	·	С
		13- 53	AA		Ç
		13- 48 13- 52	AA AA		c
		13- 54	AA		č
	·	14- 31	AA		С
		14- 33	. AA		C,
		14- 55 13- 44	AA AA		C
		14- 35	AA		č
		14- 37	AA .		С
	-	14- 39	AA		C
		14- 41 14- 43	AA AA		C
		14- 45	AA		C
		14- 47	AA		C
		14- 49	AA A		<u>c</u>
		14- 51 14- 53	AA .		C.
		14- 56	AA		C
		14- 57	. AA		0.0
		14- 59 14- 61	AA .		Č
		14- 61 14- 63	AA AA		0 0
		13- 50	AA		C
		13- 49	AA		<u>C</u>
		14- 32 14- 38	AA AA		C
		14- 36	AA		Ċ
		14- 42	AA		С
		14- 44	AA		С
		14- 46 14- 48	. AA .		C
		14- 48	AA AA		C
	<u> </u>	14- 52	AA		_C
		14- 54	AA		C
		14- 58	AA .		C
		14- 60 14- 62	AA AA		C
		14- 64	AA		č
		14- 34	AA		С
		14- 36	AA		С



PARTS CODE	AFI		PRICE	NEW	PART
	OEM CODE	NO.	RANK	MARK	RANK
		13- 45	AA		С
		13- 46	AA		C
		13- 47	AA		С
		13- 51	AA		Ċ
		12-186	AA		C
		12-157	AA		Č
		12-118	AB		В
	· · · · · · · · · · · · · · · · · · ·	13- 43	AD		В
		9- 9		N	С
		7- 30	AA		Č
		7- 5	AA		č
		6- 16	AA		C
		8- 39	AA		Č
	026E6413/	2- 4	AA		C
	026E6413/	3- 9	AA		č
	026E6413/	4- 3	AA		č
	026E6413/	5- 21	AA		C
	026E6413/	6- 6	AA		C
	026E6413/	7- 14	AA		Č
	020204107	1- 13	AA		c
		7- 15	AA		C
		5- 40	AA		C
		5- 40	AA	<u> </u>	c
	026E64140	10- 10	AA		c
	026E64180	6- 2	AA		C
	026E64260	7- 7	AA		Ç
	026E64270	3- 11	AA	 	C
	JEGEGTA!V	8- 14	AA		C
		8- 9	AA	 	C
		4- 7	AA	_ · · - · · ·	C
		6- 11	AA	<u> </u>	C
	,	8- 2	AA AA		č
		6- 4	- 77	N	c
		1- 5	AA	N	c
		7- 3	AC	!	C
		5- 19	AA		C
		8- 22	AA		C
	028E12150	8- 30	AA	 	Ç
	354W20952	8- 35	AA		C
	334W20932	9- 5	AA	<u>. </u>	C
		10- 2	AA		C
			AA		C
		10- 12			0
		5- 17 8- 47	AA AA		C
		5- 24	AA		C
		10- 6	AA		C
		7- 20	AA		C
		7- 20	77		<u> </u>
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PARTS CODE	OEM CODE	NO.	PRICE	NEW MARK	PART RANK
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OEM CODE	PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK
003N00669		2- 6	AF	N	С
003N00673		2- 7	AF	N	С
007E55460		4- 12	ΑE		<u> </u>
007E55470		5- 5	AC		<u> </u>
007E55480 007E55490		3- 16 3- 14	AC_AC		C
007E59410		8- 32	AH	N	- č
007E59420		5- 32	AE	N	Č
011E07890		4- 4	AÇ		С
011E09040		3- 22	AG	N	С
011E09050		7- 16	AE	N	_ <u>c</u>
011E09060		5- 15	AG	<u>N</u>	<u>ç</u>
011E09070		3- 4	AG	<u> </u>	<u> </u>
013E14310 013E14320		5- 4 5- 2	AC_		은
013E14320		5- 2 5- 43	AF		<u>c</u>
015E67270		5- 35	AE		č
015E72570		5- 49	AG	N	C
016E14120		4- 21	AC		С
016E14130		4- 19	AC		С
022E22650		4- 17	AR		C
022E22660		4- 18	AE		<u>C</u>
022E22670		7- 11 5- 44	AC AY		- C
022E22690 022E23300		_544 533	AG AG	N	Ö
023E17760		8- 24	AG	N	č
026E46000		4- 13	AA		Č
026E6413/		2- 4	AA		С
"		3- 9	AA		Ç
		4 3	AA		C
"		5- 21	_ AA		Č
		6- 6	AA		<u> </u>
		7- 14 10- 10	AA AA		C
026E64140 026E64180		6- 2	- AA		č
026E64260		7- 7	AA		č
026E64270		3- 11	AA		C
026E72690		5- 46	AC	N	С
026E72770		11- 9	AC		С
028E12150		8- 30	AA		С
038 <u>E22360</u>		1- 3	AG	N	C
050E15070		1- B	AM	, N	C
050E15080		1- 9	BK	N N	C E
053E06010 "		1- 11 2-901	BK	N	E
062E09060		8- 42	BR	N	E
062E09070		9- 12	AL.	N	В
062E09080		10- 3	AN	. N_	В
090E02150		1- 25	AX	N	В
[1]					
107E07470		8~ 38	AG		В
108N00367		12-116	AF	N	B
117E19330 117E19340		11- 1 11- 11	AQ AY		C
117E19340 117K32320		8- 4	AR	N	C
120E19140		1- 15	AD	N	C
127E11880		4- 11	AZ	•	В
127N00970		8- 28	ВА		В
152P05690		8- 25	AL	N	C
152P05691		8- 15	AC	<u>N</u>	့ ငို
160K55740		6- 15	BM	N	<u> </u>
// 160K55750		15-901 6- 15	BM BP	N N	E.
// // // // // // // // // // // // //		15-901	BP	N	Ē
160K55780		8- 10	AF	<u>N</u>	<u> </u>
160K55790		2- 2	AK	N	С
160K55800		6- 12	AF	N	С
160K55810		8- 11	BB	N	E_
162K50360		6- 13	AG	. N	С
[3]					
354W20952		8- 35	AA		С
[6] 695S01415		11-101	AC	N	D
[8]		11-101			
802E00980		1- 12	AT	N	C
802E00990		1- 6	AV	N	, С
					C
802E01000 802E01010		1- 14	AV AT	N N	- 6

OEM CODE	PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK
802E01020		1- 18	AK	N	С
802E01030		1- 10	AK	N	C
809E14150		4- 20	AC	-	С
809E18510		5- 50	AB	N	Č
809E18520		5- 47	AB	N	Č
809E18530		8- 33	AC	N	C
891E00470		1- 18	AE		
891E27220		1- 28	AC		0.0
001675440					- ≻ -
891E75440		1- 26	AH		C
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